



# 2016

## Wisconsin

## Methamphetamine

## Study



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This publication is the first statewide study of methamphetamine in Wisconsin.

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# Executive Summary



From 2011 to 2015, methamphetamine (meth) use in Wisconsin likely expanded between 250 and 300 percent, based on analysis of meth-related arrests, cases, charges, and seizure statistics provided by local law enforcement, state government agencies, and open source reporting. While heroin use continues to remain a focus for Wisconsin's law enforcement and treatment services, meth has quietly surged to a point where the number of cases, arrests, and charges are on par with heroin. The areas affected by increasing meth use are mostly concentrated in western Wisconsin and rural areas of the state. These areas, unlike more urban areas, are ill-equipped to handle rising meth use as they do not have the necessary resources to effectively mitigate the threat.

For the next five to ten years, Wisconsin will continue to see a statewide growth in meth use, as there are no known signs indicating an eventual collapse or reduction in use. Rising amounts of high-purity, high-potency meth will continue to keep prices low while providing desirable products. Increasing meth use will put further pressure on law enforcement, the judicial system, and social services that are unable to handle a long-term sustained surge in meth use. As meth use expands into urban areas, a number of heroin users may switch to meth due to its perceived safety over heroin.

Tackling drug abuse in Wisconsin is a broad issue and requires the support of more than just law enforcement, social services, and prosecutors. Meth tears at the entire community, instead of just the user, and endangers the lives of Wisconsin's children and families. Increasing meth use needs to be addressed as everyone has a stake in keeping their communities meth-free.

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The growth of meth use in Wisconsin can be tied to global trends. Growth in international production and seizures indicates an expanding market. Mexican cartels and other meth producers will attempt to capitalize on rising demand by continuing to boost production, resulting in increased availability and lower international prices. As Mexican cartels seek to find new markets, their escalating meth production will likely result in rising amounts of meth trafficked to Wisconsin.

Meth's flexible nature makes it difficult to detect meth trafficked to Wisconsin compared to other drugs. Investigations reveal the high purity and flexible nature of meth, as compared to other traditional drugs, makes it easier for traffickers to conceal contraband and circumvent law enforcement detection during transportation and storage. Smaller quantities and the ability to transport meth as a solid or liquid allows meth traffickers to utilize concealment methods considered unsuitable for other traditional drugs.

Gang members are responsible for the majority of meth trafficked into Wisconsin, and Hispanic, Asian, and Caucasian individuals represent the primary consumers. Law enforcement reporting indicates the predominant urban meth traffickers are Hispanic or Asian gang members, while non-gang affiliated

Caucasian traffickers supply rural parts of the state. Multiple scientific studies have identified women, school-age children, and homosexual men as groups who have an increased potential for initiating meth use.

Even though Wisconsin does not annually seize a large number of clandestine meth labs, the discovery of meth labs in Wisconsin communities is of great concern due to the toxic chemicals associated with meth manufacturing. Even though Mexico is the primary producer of Wisconsin's meth, clandestine meth labs still affect Wisconsin communities. "One pot" or "shake and bake" methods for making meth have not only simplified the process, but also increased the potential for injury, exposure, or death. The removal of precursor materials from stores has helped reduce the number of clandestine meth labs, but has not completely eradicated them. Users often identify the hardware stores or pharmacies that sell precursor materials and do not use electronic logbooks. Lastly, the high cost associated with properly remediating homes and apartments after exposure to meth labs or extensive meth smoking may leave future tenants and children at risk of becoming sick.

Meth-related criminal activity is increasing due to rising meth use statewide but particularly in western

Wisconsin. These crimes extend far beyond simple possession and distribution to include armed robbery, battery, child endangerment, domestic disturbance, burglary, sexual assault, prostitution, traffic violations, identity theft, property crime, and operating while intoxicated (OWI). As Wisconsin meth use continues increase, more meth-related crimes will begin to occur in other communities.

Meth's psychological and physiological side effects increase public health consequences. From a pharmacological standpoint, the *d*-isomer of meth is far more dangerous than the *l*-isomer due to its higher potency and intensified side effects. Similar to other meth users across the country, Wisconsin meth users prefer to smoke or intravenously inject meth. Of particular concern is the number of chronic health conditions meth users may develop from prolonged use. Multiple clinical studies identified meth users as having increased risks for coronary heart disease, cardiomyopathy, liver disease, psychosis, Parkinson's disease, and tooth decay. Additional side effects include increased risk of sexually transmitted diseases from high-risk sexual activity, intravenous drug use, and possible loss of employment. Lastly, while meth's withdrawal symptoms are not as severe as heroin, meth's prolonged use has a dramatic impact on the brain's production and release of dopamine and can impact body's production of dopamine for up to a year or longer.

Law enforcement, scientific studies, and interviews with Wisconsin meth users identified previous abuse of alcohol, marijuana, prescription pills (opioids and ATS), heroin, and untreated psychological issues, or looking for a "safer" alternative to heroin as potential reasons for beginning meth use. Meth use also begins as a way to balance out a drug user from the effects of other drugs.

Wisconsin individuals who knowingly and frequently abuse Adderall® are susceptible to abusing similar drugs, such as meth, in the future. While strong arguments exist for and against this claim, the rate of Adderall® abuse is rising nationwide. Similar to the 2010 OxyContin® reformulation's documented increase in heroin use, a similar Adderall® disruption may lead an abuser to switch meth, a readily available substitute.

An increase in Wisconsin parental meth smoking has demonstrated an increasingly negative effect on the lives of Wisconsin's children compared to other illegal drugs. Increasing meth use directly affects the lives of Wisconsin's children, which in many instances exposes them to unsafe living conditions. Parents either knowingly or unknowingly expose their children to meth when smoking in the home, this leads to an increase in children testing positive for meth ingestion even though they have never physically taken the drug. Further, living in a home with meth-addicted parents exposes children to sexual situations, abuse, and abandonment.

Due to an inability of Wisconsin meth users to receive and successfully complete drug treatment programs, they will continue using meth, leading to continued growth in meth use statewide. Current meth treatment programs are not designed to maintain treatment over the length of time necessary for users to recover adequate levels of dopamine, which leads to frequent relapses. Additionally, many users relapse due to untreated underlying causes of their meth use. Many meth users do not seek treatment because of program costs and availability. Problems obtaining treatment may prevent a meth user from receiving assistance without a court order.



# Scope Note

This joint intelligence study is the first comprehensive statewide strategic product by the FBI Milwaukee Field Office (FBI), Wisconsin Statewide Intelligence Center (WSIC), and the Southeast Wisconsin Threat Analysis Center (STAC) to examine and address the growth and use of methamphetamine (meth) within the state of Wisconsin between 2011 and 2015. This study was drafted in response to requests from multiple Wisconsin law enforcement agencies to provide a baseline understanding on the threat. The intent of this study is not to pinpoint or identify major meth traffickers, but instead examine long-term and recent developments related to meth in Wisconsin. This was achieved through an examination of the history, global and national trends, concealment and delivery techniques, demographics of user and traffickers, meth laboratories, criminal activity, pharmacology and public health consequences, gateways to use, abuse of attention deficit hyperactivity disorder (ADHD) medication, drug endangered children, treatment, community awareness, and challenges to law enforcement.

## Key Intelligence Questions

What areas of Wisconsin are experiencing rising meth use?

How is meth trafficked into Wisconsin and what groups are responsible for trafficking meth?

What groups of Wisconsin citizens may be susceptible to meth use?

What is the color, price, purity, and potency of meth in Wisconsin and how has it changed over a five-year period?

How is meth concealed when it is trafficked?

Are home meth labs fueling the growth in/of meth use in Wisconsin?

What criminal activity is associated with meth use?

What are the long-term public health consequences of meth use?

What drugs or psychological situations could possibly lead to meth use?

Does rising use of amphetamine-like stimulants lead to future meth use?

How does rising meth use affect Wisconsin's youth?

What treatment options are available for meth users?

What challenges does law enforcement face in attempting to mitigate rising meth use?

What is the outlook for meth use in Wisconsin?

# Source Summary Statement

The judgments in this joint intelligence study were based on information derived from a variety of sources, including reporting from state, local, and tribal law enforcement; county social service agencies; the DEA Methamphetamine Profiling Program; the United Nations 2015 World Drug Report; the 2015 National Drug Threat Assessment; Wisconsin Department of Health; the U.S. Intelligence Community; scholarly peer-reviewed journals and articles; interviews; and open source reporting. Collection occurred between July 1, 2015, and July 11, 2016. The authors consider this information a reliable basis for developing a strategic, macro-level study of Wisconsin's meth growth.

This study relies heavily on information obtained from ten meth roundtables held across Wisconsin from July 16 to July 30, 2015. Collectively, the 121 individuals in attendance represented law enforcement, social services, district attorneys, and other government services from 34 Wisconsin counties who shared information regarding meth in their area.

Open source articles identified as having a possible bias were included but are identified as such within the study.

The collection of additional meth-related data would only serve to strengthen the judgments presented within this study and not alter the overall conclusions.

The reporting is current as of July 11, 2016.

# Explanatory Notes

Due to scientific and legal ambiguity about the distinctions between “meth use”, “meth misuse”, and “meth abuse”, the neutral term “meth use” is used in this study.

References to calendar year (CY) are from January 1 to December 31.

A U.S. federal government fiscal year (FY) is from October 1 to September 30.

References to dollars (\$) are to U.S. dollars, unless otherwise stated.

References to tons are to metric tonnes, unless otherwise stated, and one metric tonne is the equivalent of 2,204.62 pounds.

Population data used in this study is from the U.S. Census Bureau American FactFinder.

The term “we” refers to the FBI, WSIC, STAC intelligence analysts who drafted this study.

The present report uses the following abbreviations:

<b>ADHD</b>	Attention Deficit Hyperactivity Disorder	<b>Meth</b>	Methamphetamine
<b>ATS</b>	Amphetamine-type stimulant	<b>MPP</b>	Meth Profiling Program
<b>AOR</b>	Area of responsibility	<b>NDIC</b>	National Drug Intelligence Center
<b>CBP</b>	Customs and Border Protection	<b>NDTS</b>	National Drug Threat Survey
<b>CDC</b>	Centers for Disease Control and Prevention	<b>NEWPRS</b>	Northeastern Wisconsin Property Reporting System
<b>CCAP</b>	Wisconsin Court System Circuit Court Access Program	<b>NIMH</b>	National Institute of Mental Health
<b>CLEAR</b>	Methamphetamine Clandestine Lab Enforcement and Response	<b>NSDUH</b>	National Survey on Drug Use and Health
<b>CSA</b>	Controlled Substances Act	<b>NSS</b>	National Seizure System
<b>DEA</b>	Drug Enforcement Administration	<b>OWI</b>	Operating While Intoxicated
<b>DCC</b>	Division of Community Corrections	<b>PDMP</b>	Prescription Drug Monitoring Program
<b>DCI</b>	Wisconsin Division of Criminal Investigation	<b>SAMHSA</b>	Substance Abuse and Mental Health Services Administration
<b>DHS</b>	Wisconsin Department of Health Services	<b>STAC</b>	Southeast Wisconsin Threat Analysis Center
<b>DOC</b>	Wisconsin Department of Corrections	<b>TEDS</b>	Treatment Episode Data Set
<b>DOJ</b>	Wisconsin Department of Justice	<b>UCR</b>	Uniform Crime Report
<b>DTO</b>	Drug trafficking organization	<b>UNODC</b>	United Nations Office on Drugs and Crime
<b>EPIC</b>	El Paso Intelligence Center	<b>USBP</b>	U.S. Border Patrol
<b>FBI</b>	Federal Bureau of Investigation	<b>USDOJ</b>	United States Department of Justice
<b>FDA</b>	Food and Drug Administration	<b>WSIC</b>	Wisconsin Statewide Intelligence Center
<b>HIDTA</b>	High Intensity Drug Trafficking Area		

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Brown County Drug Task Force  
Brown Deer Police Department  
Buffalo County Sheriff's Office  
Burnett County Health and Human Services  
Burnett County Sheriff's Office  
Chippewa Falls Police Department  
Clayton Police Department  
Clear Lake Police Department  
Crawford County Sheriff's Office  
Dane County Narcotics Task Force  
Dane County Sheriff's Office  
Dodgeville Police Department  
Douglas County Sheriff's Office  
Dunn County Department of Human Services  
Eau Claire Police Department  
Eau Claire County District Attorney's Office  
El Paso Intelligence Center  
Forest County Sheriff's Office  
Frederic Police Department  
Grant County Sheriff's Office  
Hayward Police Department  
Holmen Police Department  
Iowa County Sheriff's Office  
Janesville Police Department  
La Crosse County District Attorney's Office  
La Crosse County Sheriff's Office  
La Crosse Police Department  
Luck Police Department  
Madison Police Department  
Marathon County Sheriff's Office  
Menomonie Police Department  
Merrill Police Department

Milltown Police Department  
Milwaukee Police Department  
Monroe County District Attorney's Office  
Monroe County Sheriff's Office  
National Gang Intelligence Center  
National Institute on Drug Abuse  
Oneida County Sheriff's Office  
Pepin County Sheriff's Office  
Pierce County Department of Human Services  
Pierce County Sheriff's Office  
Polk County Human Services Department  
Polk County Human Services Department – Behavioral Health Services  
Polk County Sheriff's Office  
Prairie du Chien Police Department  
Price County Sheriff's Office  
Racine County Sheriff's Office  
RAND Corporation  
Richland Center Police Department  
Richland County Sheriff's Office  
Rise Together  
River Falls Police Department  
Sawyer County Sheriff's Office  
Shawano County Sheriff's Office  
Sheboygan Police Department  
Sparta Police Department  
St. Croix County Sheriff's Office  
St. Croix Department of Health and Human Services  
St. Croix Sheriff's Office  
St. Croix Tribal Police Department  
Tomah Police Department  
Trempealeau County Sheriff's Office  
U.S. Attorney's Office – Western District of Wisconsin  
U.S. Department of Homeland Security – Homeland Security Investigations

U.S. Drug Enforcement Administration  
U.S. Customs and Border Patrol – Office of Intelligence  
U.S. Marshals Service  
University of Wisconsin Police Department  
University of Wisconsin – School of Pharmacy  
Vernon County Sheriff's Office  
Washburn County Sheriff's Office  
Wausau Police Department  
West Allis Police Department  
West Central Metro Enforcement Group  
West Salem Police Department  
Wisconsin Department of Corrections  
Wisconsin Department of Corrections – Drug Court  
Wisconsin Department of Health Services – Bureau of Community Health Promotion  
Wisconsin Department of Health Services – Division of Mental Health and Substance Abuse  
Wisconsin Department of Hygiene  
Wisconsin Department of Justice – Division of Criminal Investigation  
Wisconsin Department of Natural Resources  
Wisconsin Health Insurance Organization  
Wisconsin High Intensity Drug Trafficking Area  
Wisconsin Prescription Drug Monitoring Program  
Wisconsin Rapids Police Department  
Wisconsin State Crime Laboratory  
Wisconsin State Patrol

For information about this product, please contact FBI Milwaukee, (414) 276-4684, or the Wisconsin Statewide Intelligence Center, (608) 242-5393.

# History of Meth

**We assess the origin of the current methamphetamine (meth) epidemic can very likely<sup>a</sup> be traced back to abuse of legal amphetamine-type stimulants (ATS).<sup>b</sup> This assessment is made with high confidence.<sup>c</sup>** ATS use and abuse grew from the first synthesis of ephedrine and of meth until the passage of the Controlled Substances Act of 1970. ATS users who could no longer legally obtain ATS turned to meth as an illegally manufactured substitute.

## Origins through 1930s

In 1893, Japanese chemist Nagai Nagayoshi developed the first process for synthesizing meth while researching how to extract ephedrine from the man huang plant.<sup>1,2</sup> His method of extraction, known as the “Nagai” method, became the first known instance of meth synthesis.<sup>3</sup> A student of Nagayoshi further refined the process and in 1919 produced the first crystal meth.<sup>4</sup>

**Image 1.** Photo of Nagai Nagayoshi



Source: Matsuyama University Library Archives/Public Domain

In 1929, U.S. biochemist Gordan Alles was searching for a decongestant substitute for ephedrine when he discovered amphetamine, which received a patent in 1932.<sup>5</sup> While the drug did not affect his congestive symptoms, it did make him cheerful, talkative, and inconveniently alert throughout the night.<sup>6</sup>

<sup>a</sup> See [Appendix A](#) for an explanation of probability language.

<sup>b</sup> See [glossary](#) for definition of ATS.

<sup>c</sup> See [Appendix B](#) for confidence levels in assessments and judgments.

In 1934, Alles sold his patent to Smith Kline and French (SKF)<sup>d</sup> because he was unsure how to market his discovery.<sup>7,8</sup> SKF conducted extensive clinical trials on Alles’ amphetamine for a host of diseases and ailments including bed-wetting, menstrual distress, muscular dystrophy, narcolepsy, and postencephalitic Parkinsonism.<sup>9,10</sup> The SKF-manufactured amphetamine known as Benzedrine first found success as an antidepressant medication and was advocated by psychiatrists.<sup>11,12</sup>

## World War II through 1960s

In 1938, German pharmaceutical company Temmler Werke began producing Pervitin a meth tablet used by the German military use shortly after September 1939.<sup>13</sup>

**Image 2.** Pervitin



Source: Jan Wellen/CC-BY-SA-3.0

Dubbed “Panzerschokolade” (“tank chocolate”) by German soldiers, British newspapers soon reported Germany had a “miracle pill” that could keep tired pilots alert and an entire army euphoric. For many soldiers, the miracle pill became a nightmare with increasing addiction and side effects of sweating, dizziness, depression, and hallucinations. Additionally, German soldiers were dying of Pervitin-related heart failure and suicide from Pervitin-induced psychotic episodes.<sup>14</sup> By 1941, the German military had significantly decreased their use of meth because of its addictive qualities.<sup>15</sup>

The British and American armies supplied soldiers with Benzedrine tablets, the armies’ own ATS, as it made soldiers more confident, reduced fatigue, and suppressed appetite. Benzedrine received credit for Allied victories at El Alamein and Tarawa.<sup>16</sup>

<sup>d</sup> Today known as GlaxoSmithKline.

Soldiers' ATS consumption led to ATS dependency after the war. A 1947, study examined, military prisoners and noted prisoners were agitated and hallucinating. One quarter of the inmates were eating the contents of Benzedrine inhalers that contained an amphetamine base. By the end of the 1940s, over 500,000 Americans used ATS for psychiatric purposes or for weight loss.<sup>17</sup>

By the late 1950s, increased ATS advertising as a psychological-adjustment aid resulted in having enough pharmaceutical ATS production to distribute 40 pills annually to every U.S. man, woman, and child. Advertising targeted successful businessmen beset by worry and doubt, single women, middle-aged women disenchanted with being housewives, and older men overly invested in their careers.<sup>18</sup>

In the 1960s, the use of ATS pills became problematic among young adults, especially college students.<sup>19</sup> The serious medical and psychiatric consequences that followed increased ATS use prompted the 1965 preventative slogan "speed kills".<sup>e,20,21</sup> The preventative slogan heightened awareness of the dangers associated with ATS use resulting in a reduction of ATS availability and use in the U.S.<sup>22</sup> However, declining ATS availability likely caused the first amateur clandestine meth labs in the California Bay area where it was considered fashionable to inject meth, leading to a significant rise in use.<sup>23,24</sup>

## 1970s through 1990s

In 1970, the Comprehensive Drug Abuse Prevention and Control Act<sup>f</sup> listed meth as a Schedule II<sup>g</sup> drug and greatly reduced ATS by limiting its accepted medical uses.<sup>25,26</sup> By the end of the decade, non-medical ATS use was limited to a few areas in California and Oregon where motorcycle gangs controlled meth's illicit manufacture.<sup>27,28</sup> The gangs, who had a practice of carrying meth in the crankcases of their motorcycles, led to the slang term "crank."<sup>29</sup>

During the 1980s, the rise of crack cocaine overshadowed meth use.<sup>30</sup> Motorcycle gangs used law enforcement's decreased attention to increase meth production levels and expand their meth customer base in southern California and Oregon.<sup>31,32</sup>

During this same time, meth users in Hawaii imported a new highly pure, smokable meth form called "ice"<sup>h</sup> or "crystal" from the Philippines and Southeast Asia.<sup>33</sup> The introduction of a smokable meth form quickly led to inhalation as the primary form of meth consumption.<sup>i,34,35</sup> The increased purity and potency of ice led to an increase in deaths, which were previously rare.<sup>36</sup>

As the popularity of ice grew, few people knew how to manufacture crystal meth until the mid-1980s, when Wisconsin chemist Steve Preisler, also known as "Uncle Fester," published *Secrets of Methamphetamine Manufacture*. In his book, Preisler outlined six different recipes for making meth from only legal ingredients.<sup>37</sup> In response to growing home manufacturing, the U.S. government listed phenylacetone, a main meth precursor substance, as a Schedule II substance, which changed meth's main precursor substances to ephedrine or pseudoephedrine.<sup>38</sup>

*"Meth use doubled in the U.S. from 1983 to 1988, doubled again from 1988 to 1992, and then quintupled from 1992 to 2002."*

In the 1990s, cocaine's waning popularity allowed meth to expand throughout the West Coast, Oklahoma, Missouri, and the Rocky Mountain states, due to low prices and high availability from expanding home meth manufacturing.<sup>39,40</sup> Additionally, the first "super labs"<sup>i</sup> controlled by Mexican drug trafficking groups started to appear in California and northern Mexico.<sup>41</sup>

In response to expanding meth use, federal regulations emphasized large-scale ephedrine and pseudoephedrine diversion in 1989, 1995, and 1997 and small-scale diversion in 1996 and 2001.<sup>42</sup> In addition, the Drug Enforcement Administration (DEA) and the High Intensity Drug Trafficking Area (HIDTA) program targeted meth operations in the Southwest.<sup>43</sup>

During this time period, according to treatment admissions data, meth use doubled in the U.S. from

<sup>e</sup> See [glossary](#) for definition of "speed".

<sup>f</sup> Also known as the Controlled Substances Act.

<sup>g</sup> See [Appendix C](#) for information on drug scheduling.

<sup>h</sup> See [glossary](#) for definition of "ice".

<sup>i</sup> See [Pharmacology and Public Health Consequences](#) on page 29.

<sup>j</sup> See [Clandestine Mexican super labs](#) on page 22.

1983 to 1988, doubled again from 1988 to 1992, and then quintupled from 1992 to 2002.<sup>44</sup>

## 2000s to Current

By 2000, meth use had spread across most of the U.S. except for the Northeast.<sup>45</sup> In 2004, many states began passing laws limiting the availability of over-the-counter pseudoephedrine in an effort to curb home meth production.<sup>46,47</sup>

In 2005, Congress passed the Combat Methamphetamine Epidemic Act, which federally regulated the sale of pseudoephedrine products reduced its availability for use in meth manufacturing.<sup>48</sup> In the same year, Canada, a main supplier of pseudoephedrine for Mexico, followed the U.S by enacting legislation to control its pseudoephedrine distribution.<sup>49</sup>

These efforts briefly curbed meth manufacturing, but by 2008, meth labs developed ways to circumvent legislation and obtain the ingredients needed to produce meth.<sup>50</sup> In 2010, the DEA discovered around 11,000 meth labs in the U.S., an increase from 7,530 in 2009.<sup>51</sup>

However, the new restrictions on precursor materials forced meth manufacturers to look for new processes and some relocated to Mexico. The new processes produced a more potent form of meth. Due to the upsurge in potency, today's users consume meth that is over 1,000 times the dose once taken by soldiers in World War II.<sup>52</sup>



# Global and National Trends

We assess the growth of meth use in Wisconsin is connected to rising global and national use. This assessment is made with high confidence. The growth of meth use in Wisconsin can be tied to global trends. Growth in international production and seizures indicates an expanding market. Mexican cartels and other meth producers will attempt to capitalize on rising demand by continuing to boost production, resulting in increased availability and lower international prices. As Mexican cartels seek to find new markets, their escalating meth production will likely result in rising amounts of meth trafficked to Wisconsin.

## Global Meth Trends

According to the United Nations Office on Drugs and Crime’s (UNODC) 2015 World Drug Report, meth dominates the synthetic drug global market. The established meth market is increasing in East and Southeast Asia and continues to grow in North America and Europe. Recent numbers indicate the global quantity of meth seized grew from 34 tonnes in 2009 to 88 tonnes in 2013 (Figure 1).<sup>53</sup>

Global meth suppliers are located primarily in Mexico, Burma, and China; however, all regions of the world produce some form of meth or ATS variants.<sup>54</sup>

A complex international trafficking pattern for crystal

meth has developed in recent years (Figure 2). While Mexico continues to produce the majority of crystal meth, Africa and Western Asia are increasing their production and trafficking. Mexican produced crystal meth has been seized in a number of countries around the Pacific Ocean including Australia, South Korea, the Philippines, and Japan.<sup>55</sup>

## Asia and Oceania

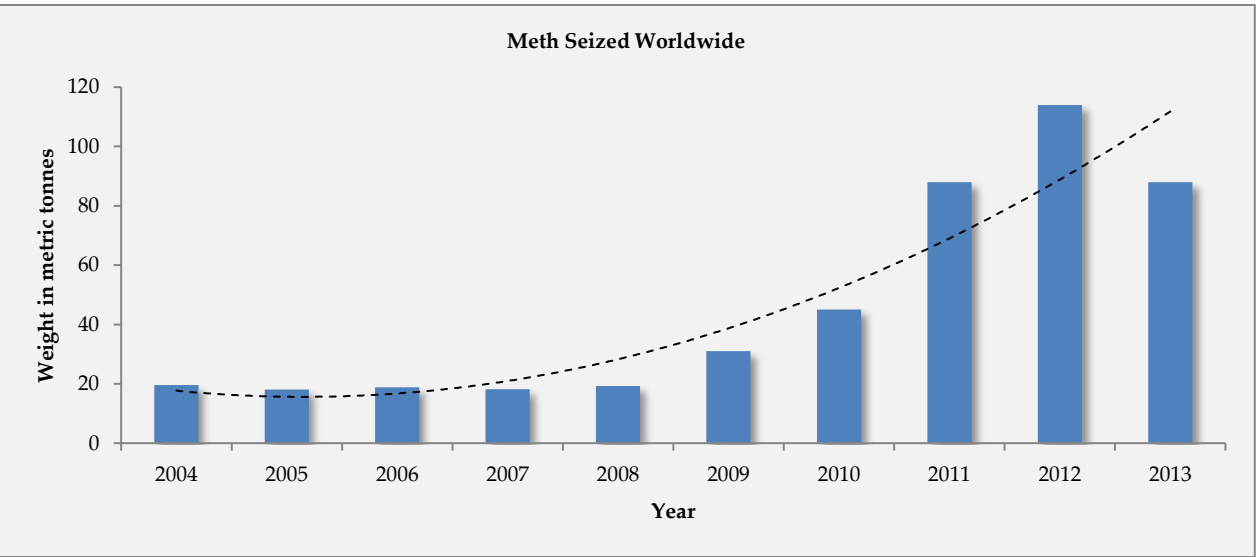
Meth is the primary ATS consumed in East and Southeast Asia.<sup>56</sup> In many of these countries, people receiving treatment for meth use are the majority of individuals in drug treatment.<sup>57</sup>

The forms of meth seized in East and Southeast Asia is tablets or crystal. Between 2008 and 2013, the amount of regional crystal meth seized doubled while the seized amount of meth tablets increased eight-fold.<sup>58</sup> According to UNODC data, in 2012 China accounted for over half of all Asian meth seizures with 15 tonnes.<sup>59</sup>

## Europe, Africa, and Middle East

In Europe, while amphetamine and ecstasy continue to make up the bulk of ATS type seizures, there is evidence of increasing crystal meth use. In Germany, the number of first-time crystal meth users rose 7 percent, seizure cases increased 10 percent, and the quantity of meth seized jumped 88 percent in 2013.

Figure 1. Meth seized worldwide from 2004 to 2013



Source: Report; United Nations Office on Drugs and Crime; May 2015; World Drug Report 2015.



**Figure 2.** Meth flows as perceived by recipient countries, from 2011 to 2013



Source: Source: Report; United Nations Office on Drugs and Crime; May 2015; World Drug Report 2015.

*Note: The origins of the flow arrows do not necessarily indicate the source/manufacture of meth. These arrows represent the flows as perceived by recipient countries. Flow arrows represent the direction of meth trafficking and are not an indication of the quantity trafficked. The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. The dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. The final boundary between the Sudan and South Sudan has not yet been determined.*

Additionally, between 2012 and 2013, crystal meth seizures in Greece, although small compared to other countries, increased from 1 kilogram to 15 kilograms. The majority of meth seizures in Turkey are of crystal meth, indicating an expanding global market for meth into countries that previously did not have meth consumption.<sup>60</sup>

For a number of years meth has dominated the Czech Republic and Slovakia drug market; meth, also accounts for the majority of ATS seizures in countries such as Belarus, Latvia, Lithuania, the Republic of Moldova, Cyprus, and Portugal.<sup>61</sup>

#### *The Americas*

Japanese officials' seizures of Mexican and Central American shipping containers containing up to 200 kilograms of meth indicate a new Latin American market for meth in Japan, a market previously dominated by China.<sup>62,63</sup>

#### **United States Meth Trends**

U.S. meth availability continues to increase and is likely reflective of rising demand. Thirty-three percent of respondents to the 2015 National Drug Threat Survey (NDTS) indicated believed meth was the greatest drug threat in their community, second only to heroin. This represents a slight change from the 2013 NDTS where 26.9 percent indicated meth as the greatest threat. The 2015 NDTS found areas where meth was the greatest drug threat, meth was also the drug responsible for the most violence and property crimes.<sup>64</sup> The U.S. Drug Enforcement Administration (DEA) estimates Mexico produces 90 percent of all meth consumed in the U.S.<sup>65</sup>

*"The DEA estimates Mexico produces 90 percent of all meth consumed in the U.S."*

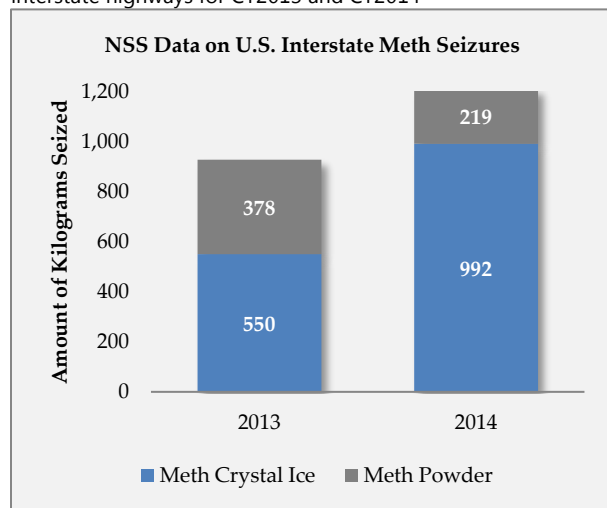
## 2015 National Drug Threat Assessment - Meth Overview

Meth seizures, survey data, price and purity data, and law enforcement reporting indicate meth continues to be readily available throughout the U.S. Mexico clandestinely produces most of the meth available in the U.S. and smuggles it across the Southwest border. Although domestic production does occur at small levels, its declination is most likely due to U.S. precursor chemical restrictions and the increasing availability of high-purity, high-potency Mexican meth.

Source: DEA; October 2015; 2015 National Drug Threat Assessment; DEA-DCT-DIR-008-16.

In 2015, the *Washington Post* theorized the decriminalization of marijuana in several states has led to rising levels of heroin and meth being trafficked into the country by Mexican cartels.<sup>66</sup> Overhead costs for meth production are minimal compared to other drugs, such as cocaine. By controlling the entire manufacturing process, cartels increase their profits as opposed to importing drugs produced in other countries.<sup>67</sup>

**Figure 3.** Total amount of meth seized on the top 10 interstate highways for CY2013 and CY2014



Source: EPIC; Intelligence Assessment; October 15, 2015; 02392-15.

Note: There was no data reported on the seizure of liquid meth.

According to the National Seizure System (NSS) maintained by the El Paso Intelligence Center (EPIC)<sup>k</sup>, between CY2011 and CY2015, nationwide meth

seizures jumped 131 percent, the highest increase of any drug group (cocaine, heroin, marijuana) during the same period.<sup>l</sup> Additionally, the number of incidents<sup>m</sup> rose 169 percent, the second highest increase during the period.<sup>68</sup>

A 2014 EPIC summary of drug interdictions on the top 10 interstate highways<sup>n</sup> showed seizures of crystal meth, increased 80 percent and meth powder seizures decreased 42 percent from 2013 (Figure 3).<sup>69</sup>

Additional analysis of NSS data showed all categories of meth (powder, crystal, liquid) rose nationwide over the five-year period between CY2011 to CY2015. During this period, the amount of powder, crystal, and liquid meth seized increased 7 percent, 151 percent, and 138 percent respectively; the number of incidents jumped 29 percent, 503 percent, and 120 percent respectively.<sup>70</sup>

In 2015, the National Survey on Drug Use and Health (NSDUH) stated there has been a steady increase in the number of first time meth users and current users. The NSDUH's last available numbers (from 2013) estimates 1,186,000 meth users, which is an approximate 3 percent increase from 2012's 1,155,000 users.<sup>71</sup>

In Minneapolis and St. Paul, Minnesota (the "Twin Cities"), between 2011 and 2012, the number of individuals seeking treatment for meth use increased 19 percent. In Ohio, the number of people seeking treatment rose 34 percent from 2009 to 2011.<sup>72</sup> In 2015, a U.S. Attorney's Office spokeswoman in San Diego said meth cases represent the majority of drug prosecutions, for the last two or three years.<sup>73</sup>

The number of meth-related deaths increased 70 percent in San Diego from 2008 to 2012.<sup>74</sup> The San Diego County Medical Examiner reported that between 2012 and 2013, there was a 34 percent increase in unintentional deaths caused by meth. Additionally, in Oregon, the number of meth related deaths rose 32 percent from 2012 to 2013.<sup>75</sup>

<sup>l</sup> See [Appendix E](#) for information on the NSS.

<sup>m</sup> An incident is an individual event where law enforcement interdicts a drug regardless of quantity.

<sup>n</sup> Top 10 interstate highways for seizures are I-80, I-40, I-70, I-10, I-75, I-5, I-95, I-90, I-94 and I-35.

<sup>k</sup> See [Appendix D](#) for information on EPIC and the NSS.

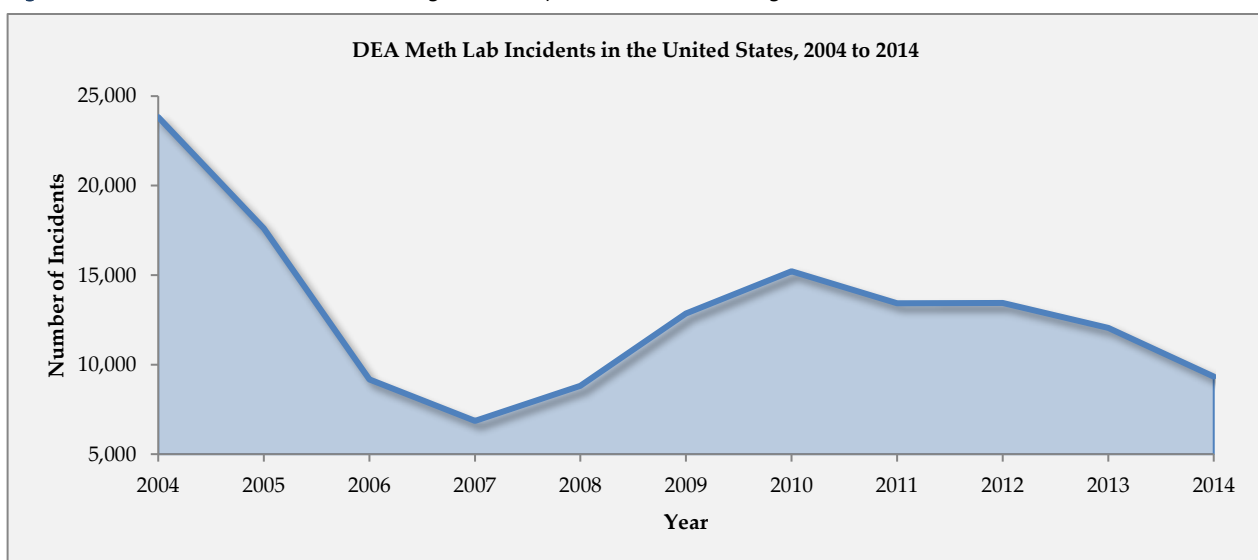
The increase in purity and availability of Mexican produced meth has led to a general downward trend in meth labs, but has not decreased meth use (Figure 4). According to law enforcement, meth use and addiction is still an epidemic. Meth users prefer Mexican meth because they do not have to worry about explosions in their homes or risk apprehension by frequent visits to a pharmacy.<sup>76</sup>

*"The increase in purity and availability of Mexican produced meth has led to a general downward trend in meth labs, but has not decreased meth use."*

For many years, Missouri led the U.S. in meth lab seizures; however, since 2012, that number has steadily declined from almost 2,000 to just 314 in the first 6 months of 2015. For Indiana, the story is quite different; in 2014, there were 1,488 labs seized and the state was on pace for a 4 percent increase in 2015. In Michigan, 2015 was expected to equal their 2014 total of 860 meth lab seizures.<sup>77</sup>

According to a 2015 Quest Diagnostics press release, the number of individuals in the U.S. workforce who tested positive for meth in 2014 was at its highest level since 2007. Individuals testing positive for meth in urine or oral fluid increased 21 percent and 38 percent respectively from 2013 to 2014.<sup>78</sup>

**Figure 4.** Number of meth incidents, including labs, "dumpsites" or chemical and glassware seizures in the U.S.



Source: US Government Web site; Drug Enforcement Administration; "Methamphetamine Lab Incidents, 2004-2014"; <http://www.dea.gov/resource-center/meth-lab-maps.shtml>; accessed on May 26, 2016.

# Meth in Wisconsin

**We assess meth availability and use has almost certainly increased across Wisconsin. This assessment is made with high confidence.** Analysis of meth-related arrests, cases, charges, and seizure statistics provided by local law enforcement, state government agencies, and open source reporting indicates meth availability in Wisconsin likely jumped between 250 and 300 percent since 2011.

## Wisconsin law enforcement reports growing meth problem

*Meth statistics presented in this section are compared to statistics for heroin as heroin is generally considered the most predominant drug threat statewide.*

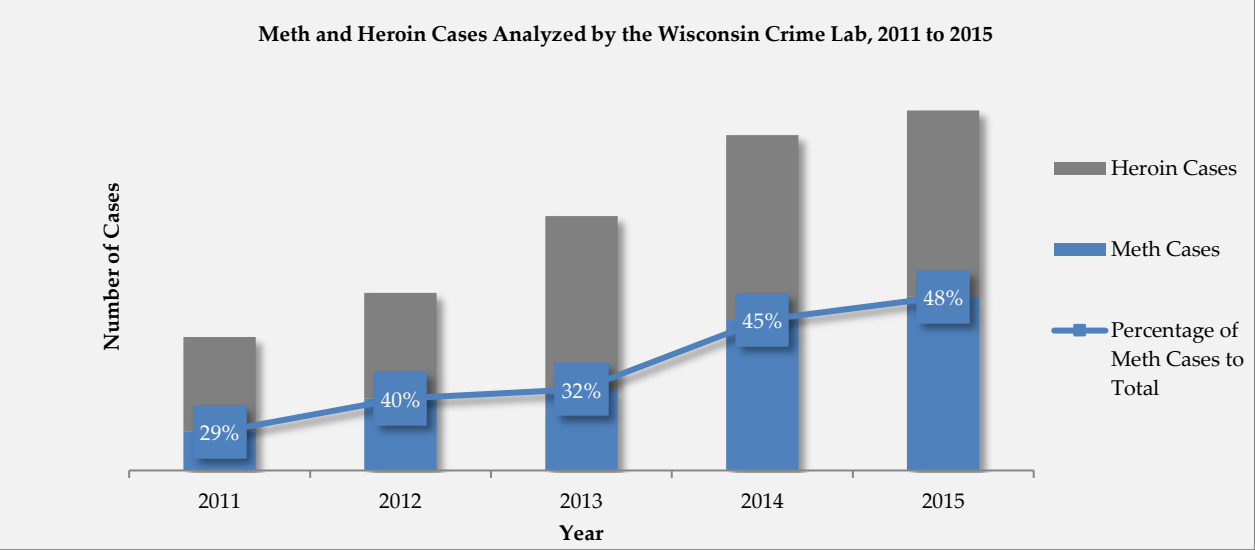
### Statewide Data

#### Wisconsin State Crime Laboratory

The best statewide optic on the growth of meth-related cases in Wisconsin is from the Wisconsin Department of Justice (DOJ) State Crime Lab ([Map 1](#)). Between 2011 and 2015, meth cases analyzed by the crime lab increased 349 percent. In comparison, during the same period, heroin cases rose 97 percent ([Figure 5](#)).<sup>79</sup>

Additional analysis of State Crime Lab data revealed

**Figure 5.** Percentage of heroin and meth cases analyzed by the Wisconsin State Crime Lab.



Source: WSIC; Email; April 22, 2016.

that the number of Wisconsin counties with a higher number of meth cases than heroin cases increased from 24 in 2011 to 31 in 2015.<sup>80</sup>

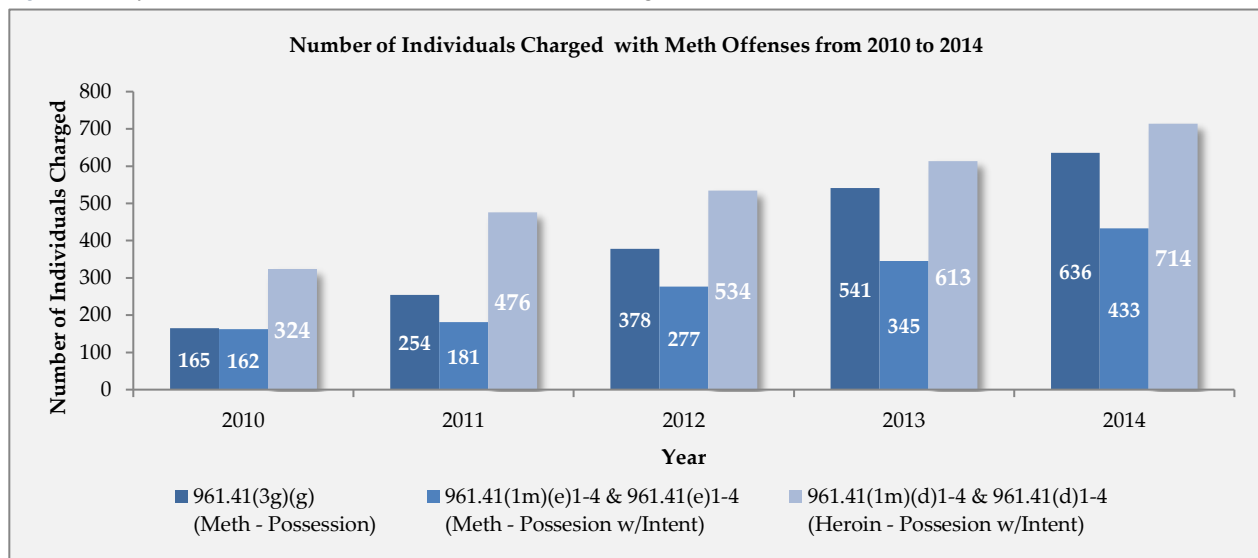
A five year comparison of the change of cases revealed, where an increase could be calculated,<sup>80</sup> the ten counties with the largest meth case increases were Ashland, Outagamie, Eau Claire, Trempealeau, Washburn, Wood, Brown, Burnett, Polk, and Rusk. Conversely, when comparing the average number of cases from 2011 to 2013 to the average number of cases from 2014 to 2015, the ten counties with the largest increase were Ashland, Rock, Oneida, Price, Trempealeau, Fond du Lac, Pepin, Wood, Calumet, and Jackson ([Map 2](#)).<sup>81</sup>

#### Wisconsin State Patrol

The Wisconsin State Patrol reported from 2010 to 2014, the number of meth-related cases rose 136 percent; arrests increased 189 percent; and grams of meth seized jumped 1,592 percent. The Wisconsin State Patrol added the vast majority of meth-related arrests and cases originated in the northwestern Wisconsin along or very near the Minnesota border.<sup>82</sup>

<sup>80</sup> Counties without any 2011 meth cases could not have an increase calculated.

**Figure 6.** Analysis of Wisconsin CCAP data for meth and heroin charges from 2010 to 2014



Source: WSIC; Wisconsin Circuit Court Access Data; 2010-2014.

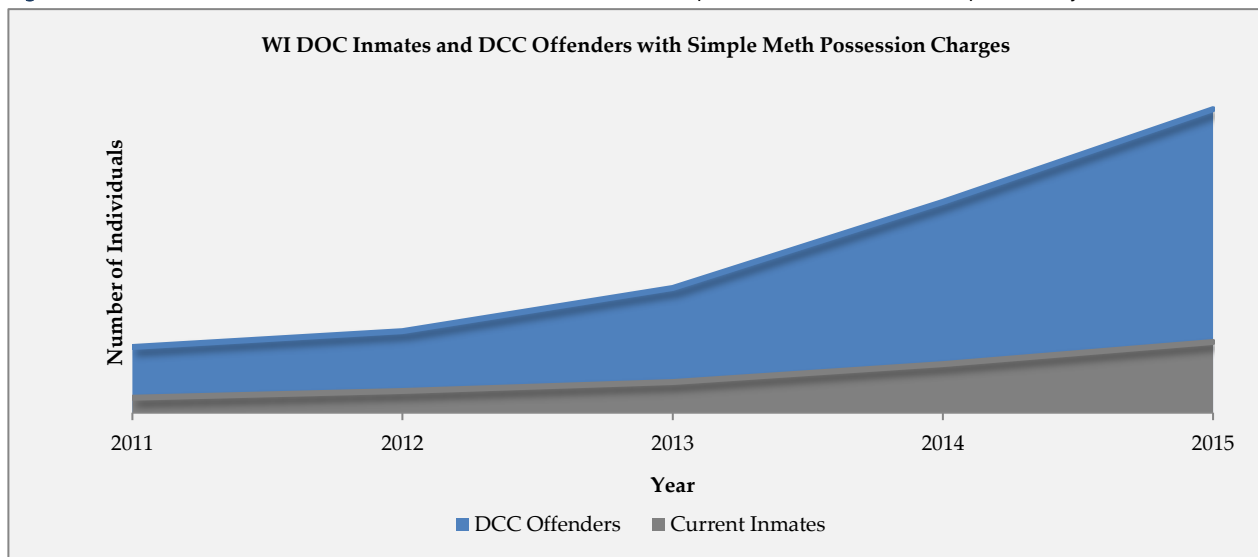
#### Meth-related Criminal Charges

Analysis of Wisconsin Court System Circuit Court Access Program (CCAP) data from 2010 to 2014 revealed simple meth possession charges increased 286 percent (Figure 6). During the same period, possession with intent to manufacture, distribute, or deliver<sup>P</sup> increased 167 percent. By comparison, possession with intent to manufacture, distribute, or deliver heroin increased 120 percent.<sup>83</sup>

#### Wisconsin Department of Corrections

Information provided by the Wisconsin Department of Corrections (DOC) indicated the number of inmates with simple meth possession<sup>Q</sup> charges increased 371 percent from 2011 to 2015 (Figure 7). In addition, the number of Division of Community Corrections (DCC) offenders with simple meth possession charges jumped 362 percent during the same period.<sup>84</sup>

**Figure 7.** (U//LES) Information on number of inmates and offenders on supervision from 2011 to 2015 provided by DOC.



Source: FBI; Email; June 23, 2016.

<sup>P</sup> See [Appendix H](#) for Wisconsin's drug statutes.

<sup>Q</sup> See [Appendix I](#) for more information on individuals with meth charges currently incarcerated or on supervision.

## Meth Seizure Statistics

While the quantity of meth seized has increased across the state, it is generally not a reliable optic for meth availability, as large seizures are often the result of advanced knowledge by law enforcement. The rate at which meth traffickers are able to sell meth complicates this effort, making large seizures relatively rare. It is common for Wisconsin meth traffickers to sell pounds of meth within hours of arriving at their destination.<sup>85</sup>

### *Drug Task Force Data*

#### Brown County Drug Task Force

The Brown County Drug Task Force reported the total of meth-related cases and arrests from 2012 to 2014 increased 42 and 148 percent over the totals from the previous four-year period of 2008 to 2011. From 2011 to 2015, grams of meth seized increased 13,989 percent. In March 2016, the task force disrupted a meth trafficking organization that was responsible for trafficking 10 to 16 pounds of meth per month to the Brown County area.<sup>86</sup> The rise of meth went mostly unnoticed in the area until a WBAY article from May 2015, highlighted meth use in northeastern Wisconsin.<sup>87</sup>

#### Dane County Narcotics Task Force

In August 2015, the Dane County Narcotics Task Force seized a meth lab that was reportedly the largest Madison had seen in more than a decade. The number of 2015 meth cases investigated by the task force was more than the number of the previous five years combined.<sup>88</sup>

#### St. Croix Valley Drug Task Force

In August 2015, a WEAU article highlighted the St. Croix Valley Drug Task Force's<sup>r</sup> arrest of a meth trafficker who received 96 months in federal prison for her role in trafficking more than 500 pounds of meth to the area between 2012 and 2014.<sup>89</sup>

#### West Central Drug Task Force

From 2011 to 2015, the West Central Drug Task Force<sup>s</sup> reported meth cases surged 895 percent; arrests

jumped 533 percent; and grams of meth seized increased 603 percent.<sup>90</sup> Two years ago it was rare to see individuals traffic an ounce of meth; however, today individuals are making multiple trips per week and trafficking one quarter to one half pound of meth per trip, according to task force members.<sup>91</sup>

### *Local Law Enforcement Data*

While data was not available from all Wisconsin law enforcement agencies, the available data provided a general picture regarding the growth of meth-related arrests, cases, and incidents.<sup>†</sup>

#### Arrests

Between 2011 and 2015, meth-related arrests increased, on average, 225 percent. According to data presented in [Figure 8](#), the largest increases were in western Wisconsin.<sup>92</sup>

#### Cases and Incidents<sup>u</sup>

Many of the law enforcement agencies contacted about meth-related cases and incidents had a record management system (RMS) change within the last five years, which made it difficult to obtain information. However, for agencies that were able to provide information, the growth in meth-related cases generally followed the pattern already established with increased growth focused in and around western Wisconsin. Notable increases were a 462 and 403 percent increase in cases and incidents in Eau Claire County, 51 percent increase in Polk County, and a 271 percent increase in incidents in the City of Sheboygan.<sup>93,94,95</sup>

#### Other data

Between 2000 and 2005, the Barron County Sheriff's Office reported meth dealers trafficked large quantities of meth from the Twin Cities to Barron County; recently, however, meth dealers opt for frequent trips with smaller quantities to avoid larger sentences if arrested. Even with frequent and smaller quantities, a meth trafficker admitted to introducing approximately 2,000 pounds of meth to

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<sup>†</sup> See [Appendix C](#) for additional information provided by local law enforcement.

<sup>u</sup> A meth-related case is defined as an instance where the law enforcement agency opens an investigative case while an incident is defined as an instance where meth is encountered but no further investigation occurs.

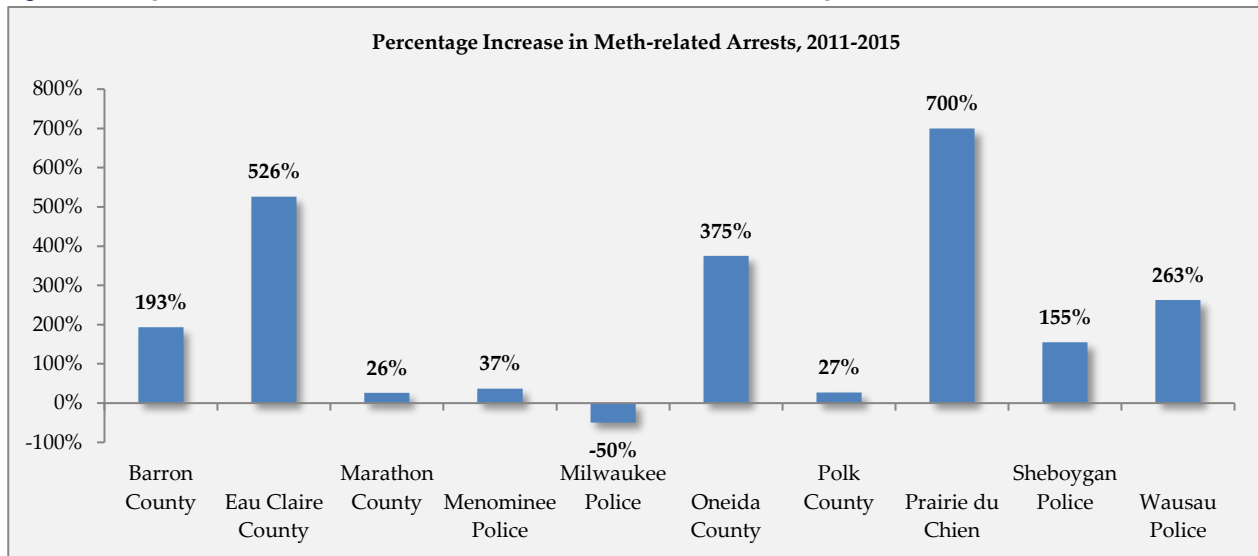
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<sup>r</sup> The task force encompasses Polk, St. Croix, and Pierce counties.

<sup>s</sup> The task force encompasses Buffalo, Chippewa, Clark, Dunn, and Eau Claire counties.



**Figure 8.** Average increase of meth-related arrests for selected local law enforcement agencies from 2011 to 2015.



Source: FBI; Email; multiple dates.

Barron County and the surrounding area.<sup>96</sup>

The Eau Claire County District Attorney's Office reported from 2011 to 2015, the number of meth-related county jail bed days grew 836 percent. In 2011, meth-related jail bed days only represented 2 percent of the total, while by 2015 the number grew to 16 percent.<sup>97</sup>

The Menominee Police Department reported in September 2015, the arrest of one dealer resulted in the largest meth seizure in the West Central Drug Task Force's history.<sup>98</sup>

The Pepin County Sheriff's Department reported that since the start of 2015, 80 percent of the individuals in the county jail were involved with some type of drug related crime, mostly tied to meth.<sup>99</sup>

The Richland Center Police Department reported meth has not historically been a problem in the county, but during the last quarter of 2015, they had their first meth seizure. Due to the increasing meth problem in Crawford, Grant, and Vernon counties, they expect the number of meth cases, seizures, and arrests to rise.<sup>100</sup>

The Wisconsin Rapids Police Department reported roughly 3 years ago law enforcement were aware of 3 individuals who sold meth in the area; today that number is close to 30.<sup>101</sup>

## Wisconsin Meth Originates in Mexico

As a synthetic product, meth does not have a single geographic source for production like heroin and cocaine. Instead, clandestine home or super labs produce meth around the world. Law enforcement and open source reporting indicates the majority of meth entering the U.S., and ultimately Wisconsin, is produced by Mexican drug cartels.<sup>102</sup>

## The Twin Cities area supplies meth to Wisconsin

Multiple law enforcement reports indicate the Twin Cities is the largest distribution point for meth entering Wisconsin. Secondly, meth is trafficked directly into Wisconsin from the Southwestern border or from California.<sup>103</sup>

Meth traffickers use Wisconsin's highway system to transport meth to secondary supply cities such as Eau Claire, La Crosse, Wausau, Green Bay, Sheboygan, and the Fox Valley area.<sup>104</sup>

While meth is generally trafficked via the aforementioned routes, there are identified outlier instances. In Trempealeau County, meth is trafficked from Chicago, via Winona, Minnesota. In Rock County, meth is trafficked from Chicago. Lastly, in one instance around Rhinelander, meth was reportedly trafficked from Iowa.<sup>105</sup>

Meth trafficked from California arrives in Wisconsin either by personal vehicles or more frequently via the United States Postal Service (USPS), United Parcel

Service (UPS), or FedEx.<sup>106</sup> In February 2016, Stevens Point Police seized a package mailed from San Bernardino, California that contained \$68,000 worth of heroin and meth.<sup>107</sup> Additionally, locations throughout the Fox Valley and Sheboygan reportedly received meth through the mail.<sup>108</sup>

### Little to no color variation

There is little to no color variation in meth trafficked to Wisconsin. Meth generally looks clear, similar to glass shards, or is slightly cloudy. Unlike heroin, when color is observed in meth it is attributable to branding efforts by meth dealers and not representative of the production source or purity. Law enforcement reported they have viewed meth colors of blue, pink, orange, and brown.<sup>109</sup>

Meth comes in pill or powder form, and crystal meth takes the form of glass fragments or shiny blue-white “rocks” of different sizes.<sup>110</sup>

**Image 3.** Crystal meth



Source: © Radspunk/Wikimedia Commons/CC-BY-SA-3.0/GFDL

### *Meth Disguised as Cocaine*

In December 2015, the Kenosha County Sheriff’s Office, Kenosha Police, DEA, and the FBI seized more than \$1.5 million in meth disguised as cocaine from a drug trafficking organization (DTO). The meth was combined with a liquid burn medication that, when ingested, would numb the tongue and individuals would not be able to identify the substance as meth.<sup>111</sup>

The DTO disguised the meth as cocaine in order to receive the higher cocaine street price. The DTO

planned to sell 37 pounds of their disguised meth around southeastern Wisconsin.<sup>112</sup>

### Purity and potency is increasing

While Wisconsin does not have an accurate measure of meth purity and potency due to limited sample testing, the DEA Meth Profiling Program (MPP) gives insight into the North Central region.<sup>v</sup> For samples analyzed by the MPP, the purity and potency of street level meth from 2011 to 2015 increased 22 percent and 48 percent respectively.<sup>w,113</sup>

#### DEA Methamphetamine Profiling Program

As stated in the 2015 National Drug Threat Assessment, the DEA Methamphetamine Profiling Program (MPP) provides an in-depth chemical analysis of selected meth samples to establish trends associated with the manufacture of meth seized primarily in the U.S. The MPP identifies the method used to manufacture meth, as well as tracks purity levels and other related trends. However, the MPP is unable to determine the origin of meth samples because the drug is synthetically produced, unlike morphine and cocaine, which are extracted from organic sources.

Source: DEA; October 2015; 2015 National Drug Threat Assessment; DEA-DCT-DIR-008-16.

The MPP is unable to provide meth isomer<sup>x</sup> statistics specifically for the North Central region, but according to national samples, the percentage of meth samples with only *d*-isomers rose 21 percent from 2011 to 2015. The increase in *d*-isomer meth likely explains the rise in purity and potency and highlights the expanding availability of Mexican meth in the U.S. as *d*-isomer meth is largely the result of complex P2P manufacturing and not home meth labs.<sup>114</sup>

### The price of meth is relatively flat across Wisconsin

Law enforcement and open source reporting indicate the county-to-county meth prices are relatively

<sup>v</sup> The North Central region includes Indiana, Illinois, Iowa, Nebraska, North Dakota, Michigan, Minnesota, Ohio, South Dakota, and Wisconsin.

<sup>w</sup> See [Appendix I](#) for more information on regional meth purity and potency.

<sup>x</sup> See [Pharmacology](#) on page 29 for more information on meth isomers.



consistent across Wisconsin, falling between \$100 and \$200 per gram, but have fallen dramatically over the last few years. A typical “hit” of meth is about one-quarter gram and costs between \$25 and \$50.<sup>115</sup>

Law enforcement reported the price for an ounce of meth in western Wisconsin is \$1,200 to \$1,500 and costs less in the Twin Cities at \$600 to \$800 per ounce. Additional reporting identified drug dealers handing out meth free in an attempt to build a larger user base.<sup>116</sup>

### **Meth use could cost Wisconsin over \$424 million annually**

A 2005 RAND Corporation study suggested the economic cost of meth use nationwide was \$23.4 billion. However, due to the uncertainty in estimating the costs associated with meth use, RAND gave a lower-bound estimate of \$16.2 billion and an upper-bound estimate of \$48.3 billion. Even though the study is ten years old, it is the only study to consider meth’s economic cost and is still valuable as a guide for how meth use may cost Wisconsin.<sup>117</sup>

Based on numbers provided by the same 2005 RAND study, meth use likely cost Wisconsin \$424.3 million in 2005. This would fall within a likely range of \$293.8 million to \$875.9 million.<sup>y</sup> The best estimate figures breaks down as follows<sup>z</sup>:

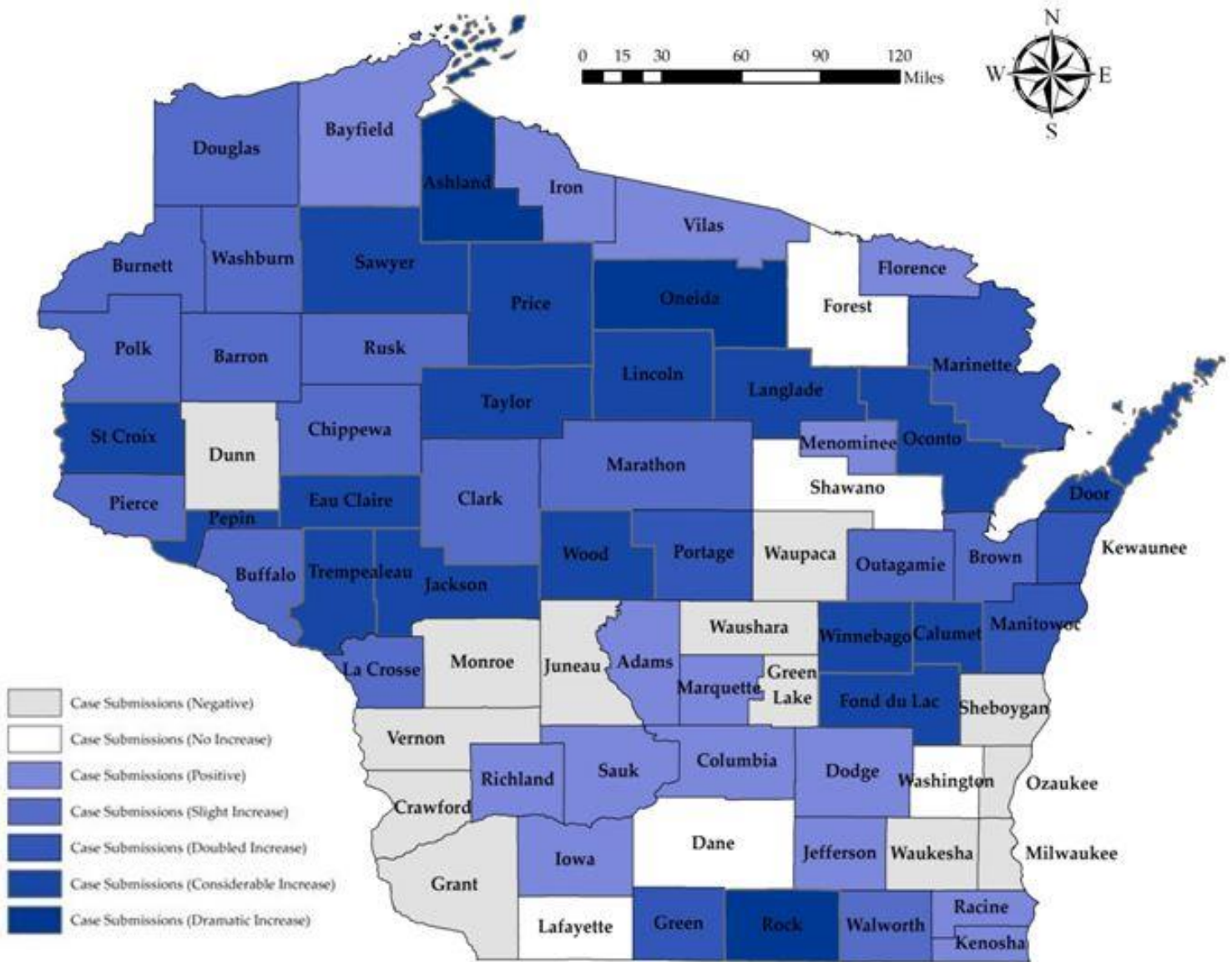
- Drug Treatment – \$9.9 million
- Health Care – \$6.4 million
- Intangibles/premature death – \$301.5 million
- Productivity – \$12.5 million
- Crime and criminal justice – \$76.3 million
- Child endangerment – \$16.4 million
- Production/environment – \$1.1 million<sup>118</sup>

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<sup>y</sup> A per capita rate was calculated for Wisconsin based on the national figures provided by the 2005 RAND study.

<sup>z</sup> See [Appendix K](#) for more information on the cost of meth use in Wisconsin.

**Map 1.** Growth in cases analyzed by county CY2011-CY2013 compared to CY2014-CY2015



Data Description: Average number of meth cases analyzed by the Wisconsin Crime Lab for 2011-2013 compared to the average number in 2014-2015.

Source: WSIC; Email; April 22, 2016.

Created By: WSIC

# Concealment and Delivery Techniques

**We assess meth trafficking techniques in Wisconsin will likely increase the difficulty in detection compared to other drugs due to meth's flexible nature. This assessment is made with high confidence.** Meth's flexible nature makes it difficult to detect meth trafficked to Wisconsin compared to other drugs. Investigations reveal the high purity and flexible nature of meth, as compared to other traditional drugs, makes it easier for traffickers to conceal contraband and circumvent law enforcement detection during transportation and storage. Smaller quantities and the ability to transport meth as a solid or liquid allows meth traffickers to utilize concealment methods considered unsuitable for other traditional drugs.

## Versatility of meth increases its concealment

*The concealment techniques highlighted in this section are not an exhaustive list and are intended only to provide examples.*

### Liquid Meth

Meth has the unique ability of being able to be trafficked in a solid or liquid form.<sup>119</sup> As of the date of this study, Wisconsin law enforcement has not identified any liquid meth trafficked into the state.<sup>120</sup> According to the 2015 National Drug Threat Assessment, solutions such as water or alcohol (methanol, ethanol, and isopropanol) can suspend liquid meth. This characteristic presents traffickers with a unique but dangerous concealment method, as liquid meth may be unrecognizable from the parent liquid.<sup>121</sup> A new national trend is to smuggle liquid meth across the Mexico-U.S. border and turn it into crystal once it reaches its destination.<sup>122</sup>

Liquid meth can be transported in numerous consumer products such as liquor, detergent, water bottles, or other containers that appear to be sealed.<sup>123</sup>

- In January 2014, a teen crossing the U.S.-Mexico border died after drinking the contents of two liquid meth-containing apple juice bottles he was carrying.<sup>124</sup>
- In February 2016, Australian authorities found \$900 million of liquid meth concealed inside gel bra inserts and art equipment. This was one of the largest drug busts in Australia's history.<sup>125</sup>

Areas of a vehicle typically used to hold liquids such as radiators, batteries, windshield washer fluid reservoirs, and fuel tanks are used to conceal liquid meth.<sup>126</sup>

**Image 4.** Liquid meth concealed in windshield washer bottles



Source: Press Release; Oklahoma Bureau of Narcotics and Dangerous Drugs Control; "Large Scale Meth Bust Reflects New Trend in Cartel 'Ice' Trafficking"; January 12, 2016.

### Crystal and Powder Meth

Information obtained from Wisconsin law enforcement indicates meth trafficked in Wisconsin is primarily solid in either a crystal or powder form.<sup>127</sup> In January 2015, the *San Diego Union Tribune* reported a CBP assistant director stated traffickers have looked for different ways to conceal meth deep inside vehicles such as in engine blocks, batteries, transmissions, or mufflers.<sup>128</sup> To avoid detection by law enforcement, meth is trafficked in smaller quantities similar to heroin.<sup>129</sup> The following examples highlight the versatility of meth and how increasingly difficult it is to detect:

- In January 2016, Brown County arrested three men trafficking meth from Minnesota concealed in children's socks.<sup>130</sup>
- In January 2016, meth was mailed to the Madison area from California, according to a report to the FBI.<sup>131</sup>

**Image 5.** Crystal meth concealed in candy



Source: DEA; October 2015; 2015 National Drug Threat Assessment; DEA-DCT-DIR-008-16.

### **Meth transactions occur anywhere and anytime**

Wisconsin meth traffickers quickly sell all their meth once reaching their destination. The speed of meth transactions corroborates the high and rising demand for meth highlighted by Wisconsin law enforcement.<sup>132</sup>

Similar to other drugs, there is no standard time or place meth transactions occur. In an attempt to deter law enforcement, meth traffickers use social media and other smart phone applications to communicate instead of traditional communication sources, such as phone calls or text messages.<sup>133</sup>

#### **Where Does Meth Use Occur**

According to a 2013 study published in *Substance Use & Misuse*, meth use occurs in the following locations:

75.1% - In a residence	16.0% - At work
59.2% - At a club	13.0% - At a concert
32.0% - At a bar	12.4% - In other location
27.2% - At a public place	3.6% - At a sex club

Source: Journal article; *Substance Use & Misuse*, Vol. 48 Issue 14; "Methamphetamine Use in Club Subcultures"; December 2013.

# Wisconsin Meth Traffickers, Users, and At-Risk Populations

**We assess gang members are responsible for the majority of meth trafficked into Wisconsin. We assess Hispanic, Asian, and Caucasian individuals primarily consume meth in Wisconsin. Population groups more at risk for developing meth addictions include women, school-aged children, and homosexual men. These assessments are made with high confidence.** Gang members are responsible for the majority of meth trafficked into Wisconsin, and Hispanic, Asian, and Caucasian individuals represent the primary consumers. Law enforcement reporting indicates the predominant urban meth traffickers are Hispanic or Asian gang members, while non-gang affiliated Caucasian traffickers supply rural parts of the state. Multiple scientific studies have identified women, school-age children, and homosexual men as groups who have an increased potential for initiating meth use.

## Gangs primarily traffic bulk meth

Wisconsin's large-scale, bulk meth is mainly trafficked by Hispanic or Asian gang members, motorcycle gangs, or non-gang Caucasians. Meth trafficked into Wisconsin is not dominated by either sex as both males and females traffic meth on a large scale. In general, urban Hispanic and Asian traffickers supply Caucasian traffickers, who subsequently distribute meth in suburban and rural areas.<sup>134</sup>

Wisconsin Hispanic meth traffickers may have connections to DTOs in the Twin Cities, California, and traffickers from the Southwest border and Mexico. However, Wisconsin-based Asian meth traffickers generally do not have direct access to a DTO; instead, they tend to have connections to other Asian traffickers in the Twin Cities area, California, or to Hispanic traffickers with access to a DTO.<sup>135</sup>

In the early 2000s, meth traffickers exhibited a higher degree of organization, but today Wisconsin's large-scale meth dealers maintain small groups of users to limit law enforcement exposure. Additionally, in many locations across the state, law enforcement increasingly see rival gangs cooperating to traffic meth.<sup>136</sup>

Meth is trafficked to benefit the individual traffickers and not the gangs as a whole. Individuals use meth trafficking profits for living expenses, purchasing more meth, and paying for hotel rooms or parties. In one example, a trafficker who sold roughly \$300,000 of meth did not have a single dollar when arrested by law enforcement.<sup>137</sup>

Traffickers tend to be between 18 and 35 years of age. A unique facet of meth use in Wisconsin is its longevity. Law enforcement has identified families with generations of meth use. Further, law enforcement has identified older individuals using meth and one individual, who was 80-years old, trafficking meth.<sup>138</sup>

## Certain populations are more at risk for initiating meth use

According to information from Wisconsin law enforcement, the demographic patterns for meth users differ from other drugs. Caucasians are the primary users followed by Asians and Hispanics with relatively few African-American meth users.<sup>139</sup>

The most recently available information from the Substance Abuse and Mental Health Services Administration (SAMHSA) indicated 92 percent of Wisconsin amphetamine<sup>aa</sup> treatment admissions are Caucasian and 50 percent are between 26 and 35 years of age. In addition, there was no difference between genders for amphetamine treatment.<sup>140</sup> Wisconsin law enforcement corroborated this information by stating the meth users law enforcement has witnessed are between 20 and 36 years of age.<sup>141</sup> While these demographics represent a majority of meth users in Wisconsin, Wisconsin law enforcement indicated all ethnicities, ages, and genders use meth.<sup>142,143</sup>

## Women

A 2010 article in the *Annual Review of Public Health* stated meth appeals equally to men and women. However, many females prefer meth to other types of drugs. Additionally, female youth are more likely to use meth in order to lose weight or cope with

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<sup>aa</sup> Meth falls within the amphetamine category.



depression.<sup>144</sup> Of concern is whether women's meth use for weight loss may exacerbate or trigger the development of an existing eating disorder.<sup>145</sup> One study stated women are likely to become dependent on meth sooner than men due to their primary reasons for initiating use<sup>bb,146</sup>

### *School-aged children*

Rise Together, a Wisconsin-based advocacy group specializing in youth outreach, conducts a yearly voluntary survey of Wisconsin school-aged children regarding views on drug use. The press release from Rise Together's latest survey highlighted one in two Wisconsin students surveyed have experimented with addictive substances and continue active use, which puts students at risk of developing substance abuse disorders.<sup>147</sup> In addition, a 2014 *American Journal of Public Health* article analyzed 2005 and 2007 Youth Risk Behavior Survey data and found "...sexual minority students endorsed a higher lifetime prevalence of drug use than did heterosexuals for all drugs, including marijuana, cocaine, inhalants, meth, heroin, and MDMA [methylenedioxymethamphetamine]."<sup>148</sup>

### *Homosexual Men*

The Centers for Disease Control and Prevention (CDC) reported homosexual men use meth and other stimulants at rates approximately nine times higher than the general population.<sup>149</sup> Rising use of meth often facilitates a greater risk of acquiring other communicable diseases.<sup>cc,150</sup> According to law enforcement reporting, the use of meth among Wisconsin gay men is rising.<sup>151</sup> During an interview with a meth user and dealer who identifies as homosexual, the interviewee stated meth is used in the gay community for sex parties.<sup>152</sup>

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<sup>bb</sup> See [Reasons for Meth Use](#) on page 33.

<sup>cc</sup> See [Long-term meth use can result in multiple chronic health conditions](#) on page 30.

# Meth Labs

We assess Wisconsin meth labs are of great concern due to the toxic chemicals associated with meth manufacturing. This assessment is made with high confidence. Even though Wisconsin does not annually seize a large number of clandestine meth labs, the discovery of meth labs in Wisconsin communities is of great concern due to the toxic chemicals associated with meth manufacturing. Even though Mexico is the primary producer of Wisconsin's meth, clandestine meth labs still affect Wisconsin communities. "One pot" or "shake and bake" methods for making meth have not only simplified the process, but also increased the potential for injury, exposure, or death. The removal of precursor materials from stores has helped reduce the number of clandestine meth labs, but has not completely eradicated them. Users often identify the hardware stores or pharmacies that sell precursor materials and do not use electronic logbooks. Lastly, the high cost associated with properly remediating homes and apartments after exposure to meth labs or extensive meth smoking may leave future tenants and children at risk of becoming sick.

The total number of labs in Wisconsin has declined dramatically from the early 2000s. From 2012 to 2015, Wisconsin averaged only 37 meth lab seizures

(Figure 9). However, during that period 73 percent of Wisconsin's counties have had at least one meth lab seizure.<sup>dd,153</sup>

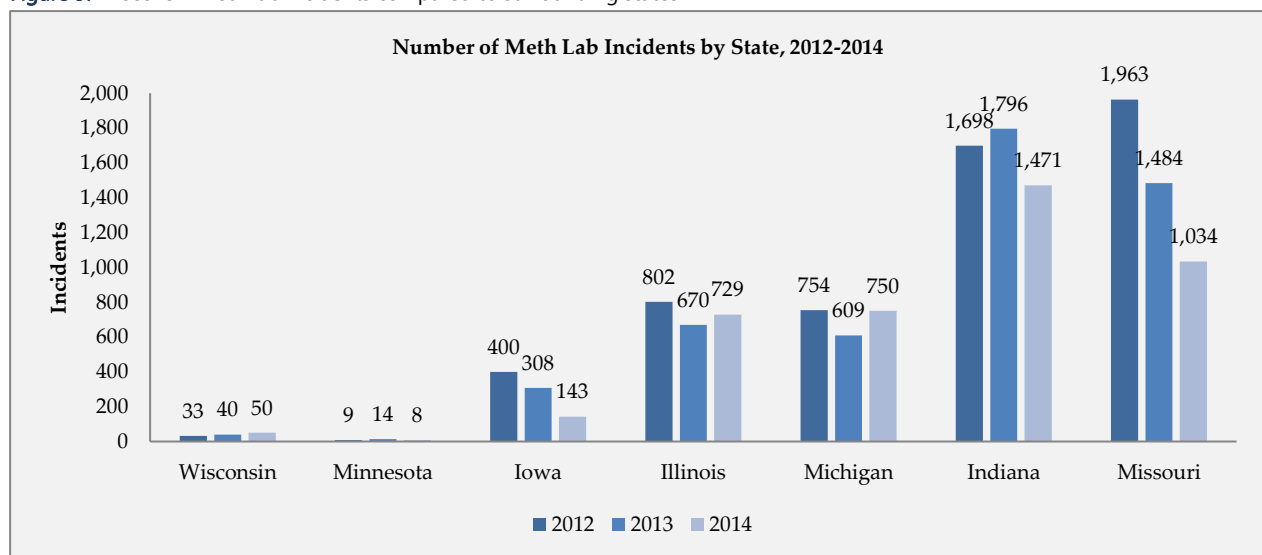
## Clandestine Mexican super labs support growing meth use

Law enforcement and open source reports indicate Mexican meth super labs produce the majority of meth consumed in Wisconsin. This has reduced the need for meth labs in Wisconsin, as it is easier to purchase high-purity, high-potency meth than it is to make it.<sup>154</sup>

*"A 'super lab' is capable of producing ten pounds, or four and a half kilograms, in a single batch...while a typical home lab produces three grams from a single pack of cold medicine."*

The image of sprawling locations where drug cartels produce meth in massive quantities does not match

Figure 9. Wisconsin meth lab incidents compared to surrounding states



Sources: WSIC; Email; April 22, 2016; and US Government Web site; Drug Enforcement Administration; "Methamphetamine Lab Incidents, 2004-2014"; <http://www.dea.gov/resource-center/meth-lab-maps.shtml>; accessed on May 26, 2016.

<sup>dd</sup> See [Appendix L](#) for a Wisconsin map of meth lab locations.

reality. In fact, the overall quantity of meth super labs produce in a single year defines them rather than their actual size.<sup>155</sup> The DEA defines a “super lab” as one capable of producing 10 pounds or 4.5 kilograms of meth in a single batch.<sup>156</sup> By comparison, the typical home lab can produce roughly three grams from a single pack of cold medicine.<sup>157</sup> Further, according to an interview with a DEA spokesperson in *Jane’s Intelligence Review*, a large basement would be sufficient and if a meth lab ran several shifts every day or so, and only manufactured a couple of kilograms a day it could still produce a tonne of meth in a year.<sup>158</sup>

The transition to other precursor materials for meth manufacturing is a continual problem for law enforcement. Identifying and banning precursor materials only leads to the development and use of new ones.<sup>159</sup> For example, after U.S. laws were enacted restricting the availability of ephedrine and pseudoephedrine, the majority of meth manufacturing moved to Mexico.<sup>160</sup> To counter the restrictions on precursor materials, Mexican drug cartels employ classically trained chemists to create their own processes, such as the 1-phenyl-2-propanone (P2P) process, which uses phenylacetic acid as an alternative to ephedrine and pseudoephedrine.<sup>161</sup>

### The “one pot” meth lab is the most common type of Wisconsin lab

The “one pot” or “shake and bake” meth manufacturing process is a growing trend and is often conducted in a moving vehicle, garage, or outdoor area. Common materials used in this process include anhydrous ammonia (fertilizer), pseudoephedrine tablets, water, lithium (batteries), lye, solvents, and cold packs.<sup>ee,162</sup> Individuals learn the process of “cooking” meth from other meth cooks while they are incarcerated or from the Internet.<sup>163</sup>

In the “one pot” manufacturing process, ingredients are poured into a plastic soda bottle or other container and then shaken; too much pressure can cause the container to burst. Additionally, “one pot” plastic containers may fail due to the chemicals reacting with the thin plastic bottle wall or the lithium burning through the plastic, causing the contents to burst into flames or the chemical mixture could burst into flames when exposed to oxygen, making it extremely

dangerous for a person to unscrew the lid. Exposure to this chemical cocktail can cause life-threatening third-degree burns. Should the victim absorb enough of the chemical mix through the skin, death could occur by meth overdose.<sup>164</sup>

**Image 6.** “One pot” or “shake and bake” bottles



Source: WSIC

Because “one pot” meth labs pose a severe health risk to individuals, it is important to be able to identify the signs of a potential lab. The November 2013 edition of *Fire Engineering* listed possible signs, apart from empty cold medicine blister packs, include:

- Bottles containing clear liquid with white or red solids on the bottom
- Coffee filters containing a white pasty substance, dark red sludge, or small amounts of shiny white crystals
- Bottles labeled as containing sulfuric, muriatic, or hydrochloric acid
- Bottles or jars with rubber tubing attached
- Glass cookware or frying pans containing a powdery residue
- An unusually large number of camp fuel cans, paint thinner, acetone, starting fluid, lye, and sulfuric acid drain cleaners
- Large amounts of stripped lithium batteries

<sup>ee</sup> See [Appendix M](#) for indicators of suspicious activity.



- Soft silver or gray metallic ribbon (in chunk form) stored in oil or kerosene.
- Propane tanks with fittings that have turned blue or green
- A strong urine or unusual chemical odor, like ether, ammonia, or acetone
- Bottles with residue, wet powders, or substances that look like wet cat litter<sup>ff,165</sup>

### **Wisconsin meth labs are for personal and/or small group consumption, not wide distribution**

Wisconsin law enforcement reported Wisconsin's meth labs are associated with small networks of individuals who are not profit-driven. Instead, these networks seek to create enough meth for their personal use and sell enough to fund the next batch. In addition, many of Wisconsin's meth cooks relocated here from other states with higher numbers of meth lab incidents. Law enforcement speculates this trend is possibly due to individuals being familiar with meth cooking prior to moving to Wisconsin. According to law enforcement, many individuals who have lost their supply of Mexican-based meth have turned to producing it themselves.<sup>166</sup>

### **Pharmacy logs are not always an effective deterrent to purchasing precursor materials**

Due to the small network structure of many Wisconsin meth labs, many individuals employ a process known as "smurfing" to acquire precursor materials. Smurfing targets local hardware stores and pharmacies with paper logbooks to acquire needed precursor materials in small amounts to avoid suspicion. The paper logs also complicate the process and increase the time needed for law enforcement review the logs.<sup>167</sup>

After Sudafed® was moved behind store counters, many pharmacies instituted a log system in order to track who purchased Sudafed® and the frequency. Wisconsin was not the only state to institute this policy; a national program known as the National Precursor Log Exchange (NPLEx) was created to help pharmacies electronically monitor purchases and allow law enforcement to effectively view these records.<sup>168</sup> Across the country, 32 states have passed laws mandating the entry of all pharmacy logs into

NPLEx.<sup>169</sup> While Wisconsin does not have a similar law, many national pharmacies within the state enter their data strictly due to the compliance requirements of other states. This has resulted in users targeting smaller, local pharmacies that still maintain paper Sudafed® logs.<sup>170</sup>

### **Remediation of meth labs is costly and time consuming**

Even though Wisconsin does not have a large meth lab problem compared to other states, according to the Wisconsin Division of Criminal Investigation (DCI), meth lab cleanups exceeded \$235,000 from 2014 to 2015. Additionally, each pound of meth produced creates five to six pounds of hazardous waste; this waste will be flammable, caustic, and/or toxic.<sup>171</sup> Lab operators routinely dump waste into streams, rivers, fields, back yards, and sewer systems in an attempt to conceal meth production, contributing to increased environmental hazards.<sup>172</sup>

Proper home or apartment remediation is of pressing concern. Many meth labs occur in lower income housing units where property owners may be unwilling to spend the funds needed to remediate a property properly. Law enforcement stated a home could test positive for meth even after a top to bottom cleaning with bleach over several days.<sup>173</sup>

The Wisconsin Department of Health Services (DHS) has more information regarding proper remediation on their website at [Cleaning Up Hazardous Chemicals at Methamphetamine Laboratories](#).<sup>174</sup>

<sup>ff</sup> During the cooking process, the bottles can contain multiple layered and colored chemicals and/or lithium strips and will produce heat and moisture. After the cooking process, bottles may appear to contain these substances.

# Criminal Activity Associated with Meth

**We assess increasing meth-related property crime, theft, and other criminal activity is correlated to statewide meth use, particularly in western Wisconsin. This assessment is made with medium confidence.** Meth-related criminal activity is increasing due to rising meth use statewide but particularly in western Wisconsin. These crimes extend far beyond simple possession and distribution to include armed robbery, battery, child endangerment, domestic disturbance, burglary, sexual assault, prostitution, traffic violations, identity theft, property crime, and operating while intoxicated (OWI). As Wisconsin meth use continues to increase, more meth-related crimes will begin to occur in other communities.

## Violence is a key harm associated with meth use

Meth-related violence is of particular concern to law enforcement and other agencies who work with meth users. Information provided by social workers indicates social workers now call for law enforcement assistance with home visits due to potential violence. Eau Claire law enforcement stated meth was a contributing factor in a number of officer-involved shootings. Additionally, law enforcement has received an increasing number of calls involving meth users who were delusional, saw things in the woods or their back yards that are not there, fired rounds from weapons at non-existent people, and ran around naked.<sup>175</sup>

*“Meth users were more likely to have committed an assault where the victim needed hospitalization.”*

According to a 2014 study published in the journal *Addiction*, violence was a key harm associated with meth use but depended on whether an individual was using at the time. During periods of use, violent behavior was six times more likely to occur versus during periods of non-use. Violent behavior was also dependent on the frequency of use. Low use (< 16 days in the past month) increased the odds of violence 4-fold and heavy use (16+ days in the past month) increased the odds 15-fold.<sup>176</sup>

A second study in 2010 by *Addiction* compared violent tendencies of meth users to opioid users and concluded there were no statistical differences with the exception of two categories. Additionally, in the past year meth users were more likely to have committed a violent crime and were more likely to have committed an assault where the victim needed hospitalization.<sup>177</sup>

## Property crime is increasing

Law enforcement and open source often correlate property crime to increasing drug use in Wisconsin.<sup>178</sup> The FBI’s annual Uniform Crime Report (UCR) does not include municipal ordinance violations, such as retail and minor theft, so no formal metric exists to analyze property crime related to specific drugs.<sup>179</sup> However, law enforcement identified some specific situations related to meth users and property crime:<sup>180</sup>

- Pepin County law enforcement reported instances where meth users would steal anything they are able to carry away instead of selectively targeting items. In addition, the jail housing costs for one identified meth user to Pepin County was upwards of \$30,000.<sup>181</sup>
- Eau Claire County had a group of meth users whose modus operandi was to identify any homes with unlocked doors or garage doors in the early morning, steal what they could for resale, and then repeat it the next night.<sup>182</sup>
- Law enforcement in northwestern Wisconsin had 20 burglaries in 3 counties attributed to one group of meth users.<sup>183</sup> Additionally, one meth user was responsible for over 80 burglaries in Bayfield County.<sup>184</sup>
- In Polk County, Minnesota meth users targeted residences in Wisconsin for property crimes.<sup>185</sup>
- Law enforcement in northern Wisconsin had instances where meth users stole everything inside targeted homes.<sup>186</sup>

Law enforcement officers regularly report observing meth users attempting to sell stolen property to pawnshops, across state lines, and on Internet resale websites; meth users have also used stolen property to barter for more meth.<sup>187</sup>

To combat property crime associated with drug use, law enforcement has taken steps to try to reduce and solve these crimes. For example, Eau Claire County has a full time pawn investigator position and Oneida County has dedicated positions to investigate drug-related crimes. Oneida County believes that identifying drug users may help prevent and solve other crimes.<sup>188</sup>

### **Meth users circumvent property recovery systems**

The 2014 Wisconsin Heroin Assessment identified vulnerabilities in property recovery systems used in Wisconsin to identify stolen property. The assessment noted pawnshops used LeadsOnline or the Northeastern Wisconsin Property Reporting System (NEWPRS); these systems did not communicate, and still do not communicate, with each other.<sup>189</sup> Now some stores use Automated Property System® (APS)<sup>88</sup> as a property recovery system. Items entered into APS do not communicate with the other systems. Use of each system is mostly regional, making identification of stolen items less likely. Additionally, some Wisconsin pawnshops believe property recovery systems are too expensive and have no means to identify stolen items; meth users have identified these pawnshops.<sup>190</sup> An additional tactic to evade identification of selling stolen items utilized by meth users is to trade the items to someone else who will then sell the item on their behalf.<sup>191</sup>

### **Meth users increasingly carry firearms, but do not use them to commit crimes**

Across Wisconsin, meth users carry firearms more frequently for self-protection, according to law enforcement. However, many meth users do not use their firearms, possibly due to harsher sentencing for using a firearm in the commission of a crime.<sup>192</sup>

Individuals who traffic weapons in Wisconsin may use meth users as mules because meth users are willing to risk arrest to make money for more meth.<sup>193</sup>

### **Meth use while driving is increasing**

Information provided by the Wisconsin State Laboratory of Hygiene indicated the number of meth-related operating while intoxicated (OWI) and motor

vehicle deaths jumped 197 percent from 2012 to 2015 ([Figure 10](#)).<sup>hh,194</sup>

In Wisconsin, 58 of its 72 counties recorded at least 1 meth-related OWI incident in 2015, a 141 percent increase from 2012 when only 24 counties had at least 1 incident. In 2015, individuals between the ages of 25 and 34 accounted for 42 percent of total incidents. Additionally, individuals between ages 25 and 34 accounted for 45 percent of all incidents.<sup>195</sup>

The counties with the largest increase of meth-related OWI incidents between 2012 and 2015 were Marathon, Dunn, Brown, Crawford, Lincoln, Grant, Langlade, Polk, Chippewa, and Eau Claire.<sup>196</sup>

### **Meth use may lead to increased identity theft**

A 2007 U.S. Department of Justice (USDJ) National Drug Intelligence Center (NDIC) bulletin identified meth users as increasingly engaging in identity theft. Law enforcement reporting also identified meth as the drug most implicated in drug-related identity theft. Meth users often generate cash by selling stolen personal checks or by using stolen credit cards to purchase merchandise sold or traded for meth. Meth users obtain personal documents from mailboxes, dumpsters, landfills, and parked cars. Higher-level drug traffickers purchase stolen personally identifiable information (PII) to create fraudulent accounts in furtherance of drug activity.<sup>197</sup>

### **Wisconsin meth-related incidents**

Law enforcement and news agencies reported the following Wisconsin meth-related incidents:

- In October 2014, an Eau Claire man received a 32-year sentence after he held a family at gunpoint while high on meth.<sup>198</sup>
- In May 2015, a Wisconsin woman allegedly taught a 12-year-old how to inject meth and helped the child inject drugs on at least one occasion.<sup>199</sup>
- In October 2015, a Wisconsin man received a disorderly conduct charge after he exposed himself in an Osceola gas station while high on meth.<sup>200</sup>

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<sup>88</sup> Formerly known as the Automated Pawn System®.

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<sup>hh</sup> These numbers only include those individuals who gave implied consent, were the subject of a death investigation, or were involved in a motor vehicle death. The actual number of individuals with meth in their system during a traffic stop and denied consent is unknown.

# Pharmacology and Public Health Consequences

**We assess meth is a highly addictive synthetic drug that has increased public health consequences due to its psychological and physiological side effects. This assessment is made with high confidence.**

Meth's psychological and physiological side effects increase public health consequences. From a pharmacological standpoint, the *d*-isomer of meth is far more dangerous than the *l*-isomer due to its higher potency and intensified side effects. Similar to other meth users across the country, Wisconsin meth users prefer to smoke or intravenously inject meth. Of particular concern is the number of chronic health conditions meth users may develop from prolonged use. Multiple clinical studies identified meth users as having increased risks for coronary heart disease, cardiomyopathy, liver disease, psychosis, Parkinson's disease, and tooth decay. Additional side effects include increased risk of sexually transmitted diseases from high-risk sexual activity, intravenous drug use, and possible loss of employment. Lastly, while meth's withdrawal symptoms are not as severe as heroin, meth's prolonged use has a dramatic impact on the brain's production and release of dopamine and can impact body's production of dopamine for up to a year or longer.

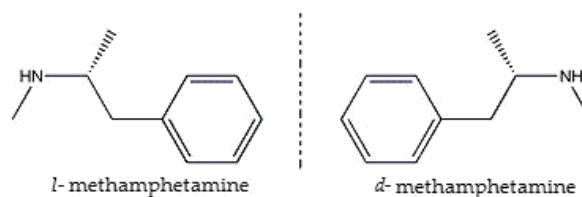
## Pharmacology

Meth is a central nervous system stimulant and has a chemical structure similar to other ATS. Currently, meth and its similar compounds are Schedule II<sup>ii</sup> controlled substances in the U.S. and is produced under the brand name Desoxyn<sup>®</sup>.<sup>201,202</sup> Numerous countries around the world use meth and other ATS to treat a variety of disorders, including attention-deficit hyperactive disorder (ADHD), narcolepsy, and obesity. People unable to lose weight may use doctor-prescribed meth for a limited period (a few weeks) along with a reduced calorie diet and exercise plan.<sup>203</sup>

Meth is a derivative of the ATS base  $\alpha$ -methylphenethylamine. Meth's chemical name is *N*-methyl-1-phenylpropan-2-amine and exists as two enantiomers, the *d* and *l* form.<sup>204,205</sup> Crystal meth can be produced from ephedrine or pseudoephedrine by yielding the *d*-isomer or *d*-meth.

The form of meth isomer ingested can affect the intensity experienced by the user. A 2011 study from *Addictive Behavior* identified the *d*-meth isomer as having increased potent physiologic and behavioral effects and having a higher potential for abuse. Further, individuals injected with *d*-, *dl*-, or *l*-meth rated the effects of *l*-meth<sup>jj</sup> as less desirable due to its weak intoxication effect whereas test subjects had desirable results with ingesting *d*-meth.<sup>206</sup> Additionally, the DEA MPP considers *d*-isomer-only samples as 100 percent potent and *l*-isomer samples as 0 percent potent.<sup>207</sup>

Image 7. *L*- and *D*-methamphetamine



Source: FBI Milwaukee

## Detection

When ingested, the liver largely metabolizes meth and meth acts as an indirect antagonist to dopamine. The body excretes approximately 70 percent of a meth dose through urine within 24 hours: 30-50 percent as meth, up to 15 percent as 4-hydroxymeth, and 10 percent as amphetamine.<sup>208</sup> However, meth is detectable in urine samples up to 48 hours after ingestion.<sup>209</sup>

*"The most reliable way to determine an individual's long-term drug history is through hair samples."*

The most reliable way to determine an individual's long-term drug history is through hair samples. As hair grows, it incorporates anything circulating in the blood, creating a record of drug use over time.<sup>210</sup>

<sup>ii</sup> See [Appendix C](#) for controlled substance schedules.

<sup>jj</sup> See [Appendix O](#) for more information on *l*-meth.

### Direct Effects

In Wisconsin, the typical meth user ingests roughly one-quarter of a gram per hit.<sup>211</sup> Meth use increases the brain's release of dopamine, norepinephrine, and serotonin, resulting in higher arousal, reduced fatigue, euphoria, positive mood, accelerated heart rate, elevated blood pressure, pupil dilation, raised body temperature, reduced appetite, behavioral disinhibition, and short-term cognitive improvement.<sup>212,213</sup> Meth's performance-enhancing benefits at low doses is similar to the benefits ascribed to other ATS pills.<sup>214</sup>

Contrastingly, high doses of meth can result in psychotic symptoms, violent behaviors, agitation, shortness of breath, shivering, chest pain, fever and cardiac, hepatic and/or renal failure.<sup>215</sup>

### Smoking and injection are preferred methods for meth use

Similar to other drugs, meth has multiple ingestion methods, the most common being smoking and injection.<sup>216</sup> User preference is mostly dependent on the person and his or her previous drug history. For example, if a heroin user switches to meth, injection will likely be preferred; if the person has a phobia of needles or a non-extensive drug history, smoking will likely be preferred.<sup>217</sup> Regardless of method, the rapid onset of euphoria provides a strong incentive for repeated use.<sup>218</sup> The University of Wisconsin Health website states smoking meth leaves odorless residue that can be smoked again.<sup>219</sup> However, regardless of method, the biological half-life of meth is approximately 10 to 12 hours.<sup>220,221</sup>

One method reported by law enforcement and not seen with other drugs is "parachuting." Parachuting is when a user swallows meth inside a piece of tissue in order to slow down the body's absorption in order to decrease meth's effects.<sup>222</sup>

Image 8. Meth pipes



Source: WSIC

### Long-term meth use can result in multiple chronic health conditions

#### Overdose Death

While overdose deaths directly related to meth use are not common, overdose deaths still occur. Most meth-related fatalities occur from heart attack, fluid in the lungs, ventricular fibrillation, or fever. However, a large number of meth-related fatalities are from accidents, suicide, and homicides.<sup>223</sup> Due to the myriad of possible circumstances leading to a meth user's death, statistics specifically on meth-related deaths are unavailable.

#### Chronic Health Conditions

Long-term use of meth can lead to multiple chronic conditions such as increased risk of coronary heart disease, cardiomyopathy, liver disease, pulmonary problems, psychosis, Parkinson's disease, and tooth decay. A 2009 study published in *Addiction* found

### Peak Effect Rates for Meth Administration Methods

Due to possible violent and psychosis side effects, law enforcement and other individuals who encounter meth users should be aware of varying peak effect rates. Two scientific studies on meth absorption rates reported the following:

- **Injection:** 100 percent bioavailability, 10-15 seconds to reach the brain, and time to peak effect is <15 minutes
- **Smoking:** 67 to 90 ± 10 percent bioavailability, 6-8 seconds to reach the brain, and time to peak effect is 18 ± 2 minutes
- **Oral:** 67 ± 3 percent bioavailability and time to peak effect is 180 minutes
- **Intra-nasal:** 79 percent bioavailability, 3-4 minutes to reach the brain, and time to peak effect is ≤15 minutes<sup>a</sup>

Source: Journal article; *Addiction*, 104; "A review of the clinical pharmacology of methamphetamine"; 6 February 2009.



meth users had an almost quadrupled risk for cardiomyopathy. Compared to non-users with cardiomyopathy, meth users had more severe left ventricular dysfunction.<sup>224</sup> Furthermore, meth users' autopsies found liver disease in 40 percent of individuals. Additionally, those who smoked meth had an elevated risk of pulmonary problems such as pneumonia.<sup>225</sup>

Meth-induced psychosis is a frequent condition associated with long-term meth use. Typical symptoms include violent behavior, anxiety, confusion, insomnia, and psychotic episodes with paranoia, aggression, visual and auditory hallucinations, mood disturbances, and delusions. A delusion commonly cited by meth users is the sensation of insects or bugs crawling on or under the skin.<sup>226</sup>

Parkinson's disease is a neurodegenerative disorder affecting dopamine neurons in the brain. As meth affects dopamine neurons, there have been multiple studies that seek to identify a link between chronic meth use and an increased risk for Parkinson's. Most studies have been inclusive; however, one 2006 study found prolonged amphetamine use was associated with an 8-fold increased risk of Parkinson's with a 27-year average between amphetamine exposure and the onset of Parkinson's symptoms.<sup>227</sup>

**Image 9.** Dental issues associated with suspected meth use



Source: © Dozenist/Wikimedia Commons/CC-BY-SA-3.0/GFDL

A well-known side effect of prolonged meth use is tooth decay. Decay occurs rapidly in meth users as meth use enhances dry mouth, leading to increased cavities, teeth grinding, and tooth fractures.<sup>228</sup> However, many other amphetamine-type drugs also produce dry mouth with no similar side effects. It is likely meth-associated dental issues are attributable to

poor sleep habits, dental hygiene, and nutrition of meth users.<sup>229,230</sup>

### *High Risk Sexual Activity and Blood Borne Illnesses*

The CDC states meth use is associated with increased human immunodeficiency virus (HIV) risk and is linked to high-risk sexual activity.<sup>231</sup> Several other studies corroborate this association and found a strong correlation between meth use, HIV, and other sexually transmitted diseases.<sup>232,233</sup>

A number of scientific studies reported meth use enhances sexual pleasure and can lead to a higher number of casual and anonymous sexual partners, increased anal intercourse, decreased condom use, sex trading, group sex, and more frequent and longer episodes of sexual activity.<sup>234</sup> HIV and other diseases can enter the body due to meth drying out areas of the body that may tear during sexual activity.<sup>235</sup> Research studies, law enforcement, and interviews with meth users indicate the groups at greatest risk to meth's sexual side effects are homosexual men and heterosexual females.<sup>236</sup> One study identified triple HIV rates of homosexual men who used meth compared to homosexual men who did not use meth.<sup>237</sup>

One study found sexual violence and coercion tended to occur more frequently with male meth users because their increased sexual desire led to some men demanding riskier sexual acts or were unwilling to take no for an answer.<sup>238,239</sup>

In addition to increased risks of sexually transmitted diseases, law enforcement reported a number of heroin users also inject meth, which may increase the number of individuals with bloodborne diseases.<sup>240</sup> While needle exchange programs provide kits with clean needles and other items needed to inject drugs safely, the programs' primary focus is to supply heroin users with Narcan®.<sup>241</sup> As a result, many meth users have little incentive to visit needle exchanges and, unless they were previous heroin users, do not frequent the needle exchange.<sup>242</sup>

### *Loss of Employment*

In 2007, the *Journal of Psychoactive Drugs* stated that 64 percent of men reported full-time employment at the time of meth treatment admission and 10 percent were unemployed.<sup>243</sup> For women, only 24 percent reported full-time employment and 30 percent were

unemployed.<sup>244</sup> Wisconsin law enforcement reported similar findings and explained that, while individuals are able to work as a new meth user, the addiction often quickly overtakes other aspects of their lives, and the user is often unable to maintain employment.<sup>245</sup>

### *Withdrawal Symptoms*

Meth users tend to use meth repeatedly or binge and crash. If meth use stops abruptly, it can lead to depression, anxiety, paranoia, disturbed sleep, craving, and cognitive impairment, which is also known as “ATS stimulant withdrawal syndrome.”<sup>246,247</sup> Withdrawal-associated depression and anxiety can cause suicidal thoughts and panic.<sup>248</sup> Psychiatric symptoms of paranoia, delusions, and hallucinations typically are resolved within a week after cessation, but can vary based on a user’s family history.<sup>249</sup> Due to the brain’s physical changes from long-term meth use, it may take anywhere from 6 to 12 months for a user to recover. However, abnormalities in a user’s brain function may persist for years.<sup>250</sup>

# Reasons for Meth Use

We assess Wisconsin individuals are likely to use meth after abusing alcohol and other drugs, have untreated psychological issues, or are looking for a “safer” heroin alternative. This assessment is made with high confidence. Law enforcement, scientific studies, and interviews with Wisconsin meth users identified previous abuse of alcohol, marijuana, prescription pills (opioids and ATS), heroin, and untreated psychological issues, or looking for a “safer” alternative to heroin as potential reasons for beginning meth use. Meth use also begins as a way to balance out a drug user from the effects of other drugs.

## Clinical studies indicate meth user’s consume meth for more energy

The *Journal of Psychoactive Drugs* found both men and women began using meth with friends in order to have more energy and “good times.”<sup>251</sup> However, females were more likely to initiate meth use for weight loss, housework completion, childcare, depression self-medication, or increased confidence.<sup>252</sup> Men began meth use to get more work done or to have better sex.<sup>253</sup> Another study found some meth users unintentionally began meth use when users thought they were taking a different drug, usually cocaine. Only after feeling a burning sensation in their nose or experiencing other side effects did users realize they ingested meth.<sup>254</sup>

A *Substance Use & Misuse* study reported 95 percent of surveyed meth users had a family member with a drinking problem; 89 percent had a family member with a drug problem; and 91 percent reported psychiatric or emotional problems. Additionally, many reported neglect or abuse as children or adults. Females reported higher rates of having felt unloved, sexually mistreated, raped, and physically or emotionally abused.<sup>255</sup>

When asked about other drugs or substances used concurrently with meth, the same study identified alcohol (42 percent), marijuana (38 percent), powder cocaine (20 percent), crack cocaine (19 percent), heroin (19 percent), and alprazolam (18 percent).<sup>256</sup>

*“Meth use started as a way to offset the lethargic effects of opioid pills...[and] after the abuse of other ATS pills such as Adderall®.”*

## Relationship between Prescription Pills and Meth

In 2012, the *Journal of Ethnographic & Qualitative Research* researched the relationship between meth and prescription pill abuse. The results found multiple reasons for meth use. In some instances, meth use started as a way to offset the lethargic effects of opioid pills. Meth use also began after the abuse of other ATS pills, such as Adderall®, when an individual did not have access to the ATS.<sup>kk</sup> Lastly, the study found meth use began when individuals change social circles and began associating with other meth users.<sup>257</sup> Wisconsin law enforcement corroborated some of the study’s findings as law enforcement witnessed meth use as a way to balance the downing effects of opioid pills or heroin.<sup>258</sup>

## Signs of Meth Use

According to the U.S. Department of Health and Human Services (HHS) signs of meth use may include:

- Inability to sleep
- Increased sensitivity to noise
- Nervous physical activity, like scratching
- Irritability, dizziness, or confusion
- Extreme anorexia
- Tremors or even convulsions
- Increased heart rate, blood pressure, and risk of stroke
- Presence of inhaling paraphernalia, such as razor blades, mirrors, and straws
- Presence of injecting paraphernalia, such as syringes, heated spoons, or surgical tubing

Source: U.S. Dept. of Health and Human Services, Substance Abuse and Mental Health Services Administration; “Tips for Teens”; 2008.

<sup>kk</sup> See [Abuse of Adderall®](#) on page 36 for more information.



## Heroin users are switching to meth

Public awareness information regarding heroin's dangers may cause heroin users to switch to meth believing meth is a "safer" alternative.<sup>259</sup> Even though meth and heroin have different effects, a number of Wisconsin meth users confirmed switching from heroin because of meth's perceived safety and lack of associated overdose deaths.<sup>260</sup> In other instances, individuals who were unable to obtain their preferred drug used meth as a substitute because it was available.<sup>261</sup>

## Wisconsin meth users explain why they began using meth

*The following anecdotal reports from ten Wisconsin meth users corroborate law enforcement and scientific studies and may explain why Wisconsin individuals initiate meth use.*

A Caucasian male, between 26 and 35 years of age, started using meth because he was comfortable with other drugs and meth was a way to cope with unaddressed feelings from his youth. Growing up his parents used cocaine and, after using cocaine himself, a dealer gave him meth free. He continued using meth because meth's high lasted longer than cocaine's high. At first, meth gave him increased focus and concentration at work, but as his use grew, meth affected his daily life. He stated no one could have made him stop his use until he decided it was time.<sup>262</sup>

A Caucasian female, between 26 and 35 years of age, started using meth after she received it free from a dealer. She had already used other drugs and alcohol and thought, "What is one more drug?" She further stated she used drugs as a way to cope with emotional problems she was unable to resolve through conventional treatments.<sup>263</sup>

A Caucasian female, between 18 and 25 years of age, stated her drug use began in high school with marijuana and alcohol abuse. She said her desire to chase any high led her to heroin and meth. She hated meth's overstimulation and, to come down from her meth high, she would use heroin. Adderall® abuse also led to her meth use, because she enjoyed how Adderall® made her feel. After becoming comfortable with Adderall®, she stated meth was an easy transition as meth gave her the "up" she sought. She was initially afraid to use meth due to images of physically deteriorated meth users, but after that did not happen, she was more comfortable with it. She

decided to quit meth after seeing how her boyfriend's meth use made him "an empty shell." Overall, she said her drug use was an attempt to cope with anxiety, depression, and other emotional issues therapy was unable to address.<sup>264</sup>

A Caucasian female, between 26 and 35 years of age, stated her drug use began at the age of 13. Through the course of her drug history, she used "everything" except heroin. Once introduced to meth, she quit all other drugs and used meth exclusively. She used meth up until the day she learned she was pregnant and then abstained for five years. When she was younger, a doctor prescribed her Adderall® and she believes meth gave her the same benefits. Ultimately, she used drugs to cope with childhood traumas for which she never received proper psychological help.<sup>265</sup>

***"At least people who use meth are not dying left and right from overdoses."***

A Caucasian male, between 18 and 25 years of age, stated his drug use started when he was seven years old and his mother's boyfriend gave him marijuana. By age 9, he started using marijuana on his own and started using alcohol at age 14. His drug use accelerated after he received OxyContin® for a broken foot. After the 2010 OxyContin® reformulation, he started using heroin. He had already been taking Adderall® for ADHD when he started using meth as an upper after using heroin. He rationalized his meth use by stating that, "at least people who use meth are not dying left and right from overdoses."<sup>266</sup>

A Caucasian male, over the age of 36, stated his drug use started with marijuana. When coffee was unable to keep him awake at work, he started using meth after prostitutes introduced him to it. He quit using meth after an almost car accident resulting from being awake continuously for four days and after he learned meth's chemical makeup.<sup>267</sup>

An African-American male, between 26 and 35 years of age, started using OxyContin® recreationally while in the military. After the 2010 OxyContin® reformulation, he switched to heroin. He stated he used meth as a way to control heroin withdrawal symptoms.<sup>268</sup>

A Hispanic male, between 26 and 35 years of age, began using Oxycodone after a car accident and

eventually transitioned to using heroin. He started using meth after a friend introduced it to him.<sup>269</sup>

A Caucasian male, over the age of 36 and who identifies as homosexual, began using meth while working at a nightclub in another state. Meth helped him concentrate and focus on his work and enhanced his sexual experiences. Additionally, a friend attempted to get him to switch to Adderall® due to Adderall® being legal. He said he was able to use meth recreationally and did not have any adverse withdrawal symptoms since stopping meth eight months prior to the interview.<sup>270</sup>

A Caucasian male, under the age of 17, stated his drug use started at age 12 with alcohol and marijuana. After abusing his ADHD medication and losing his prescription, he started using meth and cocaine. To come down from his meth high, he would use heroin and opioid pills. He turned to drugs because treatment was unable to handle his psychological issues effectively.<sup>271</sup>

# Abuse of Adderall®

**We assess Wisconsin individuals who knowingly and frequently abuse Adderall® are likely susceptible to abusing drugs of a similar nature. This assessment is made with medium confidence.**

Wisconsin individuals who knowingly and frequently abuse Adderall® are susceptible to abusing similar drugs, such as meth, in the future. While strong arguments exist for and against this claim, the rate of Adderall® abuse is rising nationwide. Similar to the 2010 OxyContin® reformulation's documented increase in heroin use, a similar Adderall® disruption may lead an abuser to switch meth, a readily available substitute.

## **When properly used Adderall® does not trigger future drug use**

Current scientific studies and the medical community state when used as intended and under a doctor's supervision, ADHD medication does not typically trigger future drug use despite Adderall® and meth's chemical similarities.<sup>272</sup> In fact, most studies exploring the relationship between ADHD medication and future drug use identify conduct disorder issues as the main factor predicting future drug use, rather than the use of ADHD medication.<sup>273</sup>

According to the National Institute of Mental Health (NIMH), ADHD medications reduce hyperactivity, impulsivity, and improve patients' ability to focus, work, and learn; medication may also improve physical coordination. The NIMH also says prescribing doctors must monitor anyone taking ADHD medication closely and carefully.<sup>274</sup>

## **Use of ADHD medication is growing rapidly**

Focused attention on Adderall® abuse over other ADHD medications is due to the fact Adderall® is the most prescribed ADHD medication and presents the greatest opportunity for diversion.<sup>11</sup> A 2013 *New York Times* article explored the advertisement and promotion of ADHD medication.<sup>mm</sup> The article cited the number of U.S. children prescribed ADHD medication grew from 600,000 in 1990 to 3.5 million in 2013. This resulted in nearly \$9 billion in stimulant medication sales in 2012 compared to \$1.7 billion a

decade earlier.<sup>275</sup> A *Statnews.com* article found 2015 ADHD medication sales were \$12.7 billion and expected to grow to \$17.5 billion by 2020.<sup>276</sup> Most notably, the *New York Times* quotes Roger Griggs, the executive of the company that introduced Adderall® in 1994, as being opposed to the marketing of stimulants to the public because of stimulants' potential dangers. Griggs said stimulants are "nuclear bombs" and should only be used under extreme circumstances when carefully overseen by a doctor. Lastly, in 2013 the article stated 1 in 7 children received an ADHD diagnosis by age 18 and between 3 to 5 percent of the adult population possibly had ADHD.<sup>277</sup>

In 2014, Express Scripts<sup>nn</sup> reported an 84 percent increase from 2008 to 2012 in adults between 26 and 34 years of age on ADHD medication. The amount spent nationally for ADHD medication during that same period rose 91 percent.<sup>278</sup>

### **FDA Adderall® Warning**

The DEA lists Adderall® as a Schedule II drug. The FDA requires the following warning be added to every Adderall® prescription:

"Amphetamines have a high potential for abuse. Administration of amphetamines for prolonged periods of time may lead to drug dependence and must be avoided. Particular attention should be paid to the possibility of subjects obtaining amphetamines for non-therapeutic use of distribution to others, and the drugs should be prescribed or dispensed sparingly".

Source: FDA, NDA 11-522/S-040; Revised March 2007

According to multiple annual reports from Express Scripts, Adderall® increased its market share of ADHD medications from 34 percent in 2012 to over 40 percent in 2015. Additionally, Ritalin® did not experience any growth and received roughly 20 percent of the market share.<sup>279,280</sup> The continued growth of Adderall® prescriptions is corroborated by information from by Wisconsin's Prescription Drug Monitoring Program (PDMP).

<sup>11</sup> See [glossary](#) for the definition of diversion.

<sup>mm</sup> See [Appendix P](#) for current FDA-approved ADHD medication.

<sup>nn</sup> Express Scripts is a prescription-benefit plan provider. Express Scripts handles millions of prescriptions each year through home delivery.

***“In 2015, there were over 10.5 million Adderall® pills dispensed in Wisconsin.”***

The PDMP found the number of Adderall® prescriptions written in Wisconsin increased 20 percent from 2013 to 2015, while the number of Desoxyn® and Ritalin® prescriptions decreased by 47 percent and 41 percent respectively. In 2015, there were over 10.5 million Adderall® pills dispensed in Wisconsin.<sup>281</sup>

### **Abuse of Adderall® may lead to use of other stimulant drugs**

Individuals who consciously abuse ADHD medications may develop significant drug abuse and addiction risks.<sup>282</sup> According to one individual, who was a previous Adderall® and meth user, when people who are predisposed to addiction problems, abuse of stimulant medication can lead them to additional addictions.<sup>283</sup> A 2016 *National Public Radio* article further explained national nonmedical use of Adderall® and generic versions increased 67 percent among adults across the nation.<sup>284</sup> Law enforcement reported instances where parents abused their children’s ADHD medication, the parents switched to meth when the ADHD medication became unavailable.<sup>285</sup>

A 2016 Johns Hopkins Bloomberg School of Public Health press release identified 60 percent of non-medicinal Adderall® use was among 18 to 25 year olds who tried to improve their college academic performance.<sup>286,287</sup> *Addictive Behaviors* added 70 percent of individuals who abused ADHD medication received the medication from friends who legitimately obtained a prescription.<sup>288</sup> The John Hopkins press release stated many college students thought stimulants like Adderall® were harmless.<sup>289</sup> However, a 2010 *WisconsinWatch.org* article explained college students’ use of Adderall® for passing tests becomes a destructive cycle that requires further abuse of the drug as students believe they cannot succeed without it.<sup>290</sup>

The *WisconsinWatch* article also cited a University of Wisconsin-Eau Claire professor and ADHD expert who said, “The longer you take the drug and the higher the dose, the more side effects and the more troubling outcomes for the people involved.” In an

experiment to determine how prevalent Adderall® was on the University of Wisconsin-Madison campus, it took two journalism students 56 seconds to find someone willing to sell them Adderall® in the university’s library.<sup>291</sup>

In addition to those trying to get an edge in college, women who want to be “supermoms” may be more likely to abuse ADHD medication, according to a 2014 *ABC News* story. The article highlighted one mother’s journey from ADHD medication to meth after failing to persuade her doctor to continue prescribing her pills. Her story is not unique and can be seen in numerous families throughout the county.<sup>292</sup>

In 2014, an author who may harbor potential bias against the pharmaceutical industry, wrote an article published on *Motherboard.vice.com*. The author stated that, after taking 30 milligrams of Adderall®, he experienced the same high as street meth. He never used meth again as Adderall’s® high was cleaner and the pills were easier to obtain. The author also stated many of the arguments used today in favor of increasing ADHD medications are similar to those used in the 1950s and 1960s to promote increased amphetamine usage. Lastly, the author argues that because doctors prescribe ADHD medication and the pills come in an orange bottle, many individuals believe Adderall® is safe; however, if those same pills would be illegal if they came in a plastic bag.<sup>293</sup>

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<sup>00</sup> See [Pharmacology](#) on page 29 for more information.

# Drug Endangered Children

**We assess an increase in Wisconsin parental meth smoking has had an increasingly negative effect on the lives of Wisconsin's children compared to other illegal drugs. This assessment is made with high confidence.** An increase in Wisconsin parental meth smoking has demonstrated an increasingly negative effect on the lives of Wisconsin's children compared to other illegal drugs. Increasing meth use directly affects the lives of Wisconsin's children, which in many instances exposes them to unsafe living conditions. Parents either knowingly or unknowingly expose their children to meth when smoking in the home, this leads to an increase in children testing positive for meth ingestion even though they have never physically taken the drug. Further, living in a home with meth-addicted parents exposes children to sexual situations, abuse, and abandonment.

## Parental meth use can lead to a lifetime of physical, social, or psychological issues in children

According to a study from the *Annual Review of Public Health*, parental meth use results in children's out-of-home placement and a higher number of child abuse crimes and homicides. Children of meth users are at risk of social, emotional, developmental, and behavioral problems during adolescence, as well as cognitive, psychological and permanent brain damage or physical impairments.<sup>294</sup>

Wisconsin social workers stated parents who use meth frequently might neglect their families, children, and personal hygiene. Frequent parental meth smoking inside the home causes children to test positive for meth ingestion, because the smoke residue falls and settles on toys and carpets. A number of meth smoking parents have switched to injection, believing it to be a safer alternative for children in the home.<sup>295</sup>

A June 2015 *Leader-Telegram* article reported Eau Claire area law enforcement found shards of meth, needles, and animal feces in meth users' homes; some of the homes had children. In some instances, law enforcement found young children who had to help their siblings get ready for school as their parents are completely consumed by their meth use.<sup>296</sup>

**Image 10.** Inside Wisconsin Meth User's Home



Source: WSIC

In another instance, two Eau Claire parents admitted to smoking meth in their home with their four children present. The children, ages eight months to six years, all tested positive for meth through hair samples.<sup>PP,297</sup>

While high on meth, parents may not be as discrete about sexually explicit material or behaviors or care who is spending time with their children. According to social services, lack of discretion is leading to an increased number of children exposed to pornography or other harmful sexual situations, leading to possible lasting trauma.<sup>298</sup>

## Meth-using parents are more likely to abandon their children

Wisconsin social services stated the Eau Claire area's Drug Endangered Children (DEC) program prosecuted more child neglect cases in 2015 than the previous five years combined. In some instances, removing children from the home was not enough to inspire meth-using parents to change their behavior. Social services in western Wisconsin also noted a decrease in cooperation from meth-using parents, which has led law enforcement and social service workers to make joint home visits. Law enforcement is more skilled than social service workers in identifying meth in the home, and therefore parents are unable to deny meth use or ignore the social service workers.<sup>299</sup>

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<sup>PP</sup> See [Pharmacology](#) on page 29 for more information.

Many law enforcement and social workers find some meth-using parents are either relieved or happy when social services removes children from the home as it allows the parents to continue using meth. Social service workers added many parents fail to understand once children are removed from the home, parents are ineligible for many state services, including some alcohol and drug abuse services.<sup>300</sup>

It is important to note, the experience of social services in western Wisconsin may not be applicable statewide. In northeastern Wisconsin, meth-related child neglect is low because law enforcement or family members who identify a problem quickly contact Child Protective Services (CPS). Similar to other parts of the state, parents are quick to turn over their children to family members and tell the courts they will attempt to turn their life around, only to never make any serious changes.<sup>301</sup>



# Meth Treatment Concerns

**We assess that, due to an inability of Wisconsin meth users to receive and successfully complete drug treatment programs, they will continue their meth use, leading to a continued growth in meth use statewide. This assessment is made with high confidence.** Due to an inability of Wisconsin meth users to receive and successfully complete drug treatment programs, they will continue using meth, leading to continued growth in meth use statewide. Current meth treatment programs are not designed to maintain treatment over the length of time necessary for users to recover adequate levels of dopamine, which leads to frequent relapses. Additionally, many users relapse due to untreated underlying causes of their meth use. Many meth users do not seek treatment because of program costs and availability. Problems obtaining treatment may prevent a meth user from receiving assistance without a court order.

## The number of Wisconsin individuals seeking treatment is increasing

From 2010 to 2014, there has been a growth in the number of individuals seeking treatment for meth and ATS addiction in Wisconsin. The Wisconsin Department of Health Services (DHS) lists three data sources used for the tracking of treatment admissions: the Treatment Episode Data Set (TEDS),<sup>99</sup> Medicaid, and private insurance. According to available data, the number of individuals receiving treatment reported in TEDS<sup>100</sup> increased 11 percent, Medicaid<sup>101</sup> increased 718 percent, and private insurance<sup>102</sup> increased 56 percent from 2010 to 2014.<sup>302,303</sup>

## Meth users face a number of challenges while in treatment

According to law enforcement, Wisconsin meth users have few treatment options. The inability to enroll in

an effective treatment program can lead many meth users to relapse. A lack of treatment resources and preference toward those with mandated treatment led one former Wisconsin meth user to opine that it is easier to get into a treatment program by committing a felony than trying to enroll on his or her own.<sup>304</sup>

Additional challenges faced by meth users include failure to diagnosis underlying issues for initial meth use and “one size fits all” programs. Women relapsed due to a desire to lose weight, have more energy for their children, or because they were no longer pregnant. Men relapsed due to drug availability, meth-using friends, the desire to get high, or the desire to have more sex again.<sup>305</sup> Many service providers may not understand the context of meth use in the homosexual community, as many homosexual male meth users are well educated, in full-time employment, and have stable housing.<sup>306</sup>

Due to the complex and long-term nature of meth treatment, DHS expressed a desire to see more treatment facilities utilize the Matrix Model for meth treatment. However, the cost is roughly two and a half times higher than standard TEDS treatment and may therefore make it cost prohibitive.<sup>307</sup>

### Matrix Model of Cognitive Behavioral Therapy

A 2013, an article in the *Journal of Food and Drug Analysis* explained that the Matrix Model incorporates principles of cognitive behavioral therapy (CBT) in individual and group settings, family educations, motivational interviewing, and behavioral therapy that employs CBT principles. This manualized therapy<sup>103</sup> has been proven effective in reducing meth use during a 16-week application of the intervention compared to a “treatment as usual” condition. The Matrix Model has been evaluated as a stand-alone treatment for subgroups of meth abusers and as the behavioral treatment platform in pharmacotherapy trials for meth dependence.

Source: Journal article; *Journal of Food and Drug Analysis*, Supplement, Vol. 21; “Current research on the epidemiology, medical and psychiatric effects, and treatment of methamphetamine use”; December 2013.

<sup>99</sup> See [glossary](#) for more information on TEDS.

<sup>100</sup> Individuals receiving TEDS treatment are usually mandated by a drug or criminal court sentence.

<sup>101</sup> Medicaid treatment data is for all amphetamines, not unique meth instances. The 2012 Affordable Care Act, increased the pool of individuals who could afford treatment.

<sup>102</sup> Numbers provided were for a two-year period of April 2013 through March 2015. In addition, data included amphetamine and other psychostimulant dependence and not unique meth instances.

<sup>103</sup> See [glossary](#) for definition of manualized therapy.

## Ordered treatment has varied success

A 2007 study in the *Journal of Psychoactive Drugs* stated involuntary admission to meth treatment programs may be viewed as positive because it mandates enough treatment for the withdrawal side effects from prolonged meth use to fade away. This could allow for a more accurate and complete understanding of the problems faced by those in treatment.<sup>308</sup> Law enforcement and social services echoed this statement by adding that, in their experiences, if users are in custody for 60 to 90 days, users may have a better chance at successfully completing treatment.<sup>309</sup>

Even when entering mandated treatment and with external motivation, such as having their children returned, Wisconsin social service workers said the only successful meth mothers who got their children back within a year were the ones who sat in jail.<sup>310,311</sup>

The *Journal of Psychoactive Drugs* study also referred to a 2004 study where researchers observed mandated treatment admissions from drug court had retention and completion rates more than twice as high as non-mandated admissions.<sup>312</sup> While Wisconsin uses drug courts, law enforcement and social services noted this is not always successful in helping users break their meth habit; even when released and treatment is ordered, users fail to attend. In one law enforcement-provided example, three out of eight users in drug court began using meth again while still under supervision.<sup>313</sup>

# Outlook

**We assess Wisconsin will continue to see an upward trend in meth use. This assessment is made with high confidence.** For the immediate future of five to ten years, Wisconsin will continue to see growth in meth use statewide, as there are no signs of an eventual collapse or reduction in use. Rising amounts of high-purity, high-potency meth will continue to keep prices low while providing a desirable product to meth users. Increasing meth use will put further pressure on local law enforcement, social services, and district attorneys who lack the resources to handle a long-term, sustained surge in meth use. As meth use expands into urban areas, use rates will only increase as a number of heroin users may switch to meth due to meth's perceived safety.

Tackling Wisconsin's drug abuse is a broad issue requiring the support of more than just law enforcement, social services, and prosecutors. Meth is unique in the way it tears at the entire community rather than just the user and for endangering the lives of Wisconsin's children. As such, increasing meth use needs to be addressed as everyone has a stake in keeping their communities meth-free.

## Meth in Wisconsin

Other than in specific western Wisconsin communities, meth use continues to garner less media and public attention than heroin. As presented in this study, since 2011, meth use statewide has increased between 250 and 300 percent. This indicates a rapidly expanding problem that needs to be addressed. The data from the five-year period examined in this study indicates the Wisconsin State Crime Lab will likely analyze an almost equal number of heroin and meth cases in 2016. This continues to highlight meth's significant rise in Wisconsin.

Meth use will continue to spread across eastern and southern Wisconsin. Since many rural areas of western Wisconsin have an unusually high number of meth cases (based on their population), it is likely more urban areas will contribute to the meth-using population as meth spreads across the state.

The number of meth labs in Wisconsin will not increase substantially, even if Wisconsin law enforcement successfully arrests major meth traffickers, as many meth users prefer the higher quality meth produced in Mexico and it is readily

available. There will continue to be a small, limited minority who will attempt to produce their own meth if they are unable to obtain it from other sources; this number is unlikely to increase.

Increasing meth use across Wisconsin may lead to an increase in reported illnesses of non-meth users, due to improper remediation of homes with meth labs or extensive meth use. While property owners or realtors may identify a home with a meth lab, homes where meth users extensively smoked inside will not be easily identifiable. While the home may appear clean, future residents, especially small children and infants who crawl on carpeted areas of a home, may ingest residue from meth smoke.

## Criminal Activity Associated with Meth

Since violence is associated with meth use and the number of Wisconsin meth users continues to rise, it is highly likely violence, property crime, and other crimes associated with meth use will continue to rise. It is likely the number of domestic abuse cases, child abuse cases, and violent encounters with law enforcement will increase.

Property crimes will continue to grow, as this type of crime is one of the main ways meth users support themselves. While an increase in property crimes may not be easily identifiable in more urban areas of the state, it may be more readily apparent in rural areas. The lack of information sharing between property recovery systems will continue to present a challenge to law enforcement and pawnshops as they attempt to identify stolen items.

As the number of meth users who carry firearms for self-protection increases, there is a roughly even chance the number of firearm-related incidents may increase. Though many do not use firearms to commit crimes, some meth users experience psychosis while using meth and incidents could occur where meth users shoot at unknown individuals on their property, or in extreme circumstances, at law enforcement.

## Public Health Consequences

Though health-related side effects of meth use have a far greater impact on the individual user than the community, it is likely there will be increased

pressure on Wisconsin's health care providers as meth use grows. Many meth users do not have private insurance and may rely on public assistance or be unable to pay out-of-pocket costs for the general or specialized health care needed to treat their symptoms. Consequently, potential increases in public assistance and non-payment for health care services will likely raise the cost of health care across Wisconsin.

### **Reasons for Meth Use**

Wisconsin's meth users have many gateways and proactively targeting one specific route may prove difficult. Scientific studies and interviews with meth users identified alcohol and marijuana use at a young age as well as untreated psychological issues as primary reasons for eventual meth use. As it is rare for meth users to initiate meth use without some other type of previous drug use or abuse history, a rise in the use of other drugs may potentially lead to increased meth use across Wisconsin.

The number of meth users will likely grow due to rising concurrent use of meth and prescription opioid pills or heroin. With increasing numbers of opioid and heroin users, there will likely be future migration to meth, as some users develop fear of overdose death, but exhibit no desire to suspend their illegal drug use.

### **Abuse of Adderall®**

Increased exposure to stimulant medication may lead to an unknown number of individuals to develop dependence or abuse. The transition from legitimate to illegitimate drug use is already apparent and well documented with other chemically similar products, such as prescription opioid pills and heroin. However, similar to opioid pills and heroin, not every individual who uses ADHD medication will develop future abuse issues. The main danger associated with increasing ADHD medication use is likely to come from a disruption in an ADHD abuser's ability to obtain pills, which may lead them to use meth as a substitute.

In January 2016, the FDA approved a new amphetamine-based ADHD medication known as Adzenys®. This chewable, fruit flavored medication is marketed toward children ages six and up, but some psychiatrists are concerned Adzenys® may cause overmedicating children, and could be yet another gateway into ADHD drug abuse.

### **Drug Endangered Children**

The number of Wisconsin children living in dangerous environments due to meth use is likely to increase. Meth-using parents will continue to place their children in harmful situations by smoking meth inside of homes.

### **Treatment**

A lack of treatment facilities focusing on meth use statewide will increase the difficulty of meth users to enroll in treatment programs. In addition, as the number of meth users increase, users will be competing for limited treatment programs leading many users to not receive treatment. The inability of meth users to receive treatment may lead many to continue their meth use. Meth users not able to afford treatment will further compound this situation. In addition, many of the treatment services available do not offer the type and length of treatment needed to help reduce the relapse rate.

The low number of meth users receiving treatment will likely raise the number of users who are in the community attempting to support their habit by committing crimes. Lastly, meth users who want to receive treatment but are unable to enroll in a treatment program may turn to committing crime as a way to receive court-mandated treatment.

## Data Supplements and Appendixes

# Appendix A: Estimative Language

## Expressions of Likelihood (or Probability)

We use phrases such as *we judge*, *we assess*, and *we estimate*—and probabilistic terms such as *probably* and *likely*—to convey analytical assessments and judgments. Such statements are not facts, proof, or knowledge. These assessments and judgments are based on collected information, which often is incomplete or fragmentary. Some assessments are built on previous judgments. In all cases, assessments and judgments are not intended to imply we have “proof” that shows something to be a fact or two items or issues are definitely linked.

In addition to relaying judgments rather than certainty, our estimative language also often conveys 1) our assessed likelihood or probability of an event; and 2) the level of confidence we ascribe to the judgment.

### *Estimates of Likelihood*

Because analytical judgments are not certain, we use probabilistic language to reflect our estimates of the likelihood of developments or events. Terms such as *probably*, *likely*, *very likely*, or *almost certainly* indicate a greater than even chance. The terms *unlikely* and *remote* indicate a less than even chance that an event will occur; they do not imply that an event will not occur. Terms such as *might* or *may* reflect situations in which we are unable to assess the likelihood, generally because relevant information is unavailable, sketchy, or fragmented. Terms such as *we cannot dismiss*, *we cannot rule out*, or *we cannot discount* reflect an unlikely, improbable, or remote event where the consequences are such that it warrants mentioning. The chart below shows the relationship select terms have with each other.

<i>Terms of Likelihood</i>	<b>Almost No Chance</b>	<b>Very Unlikely</b>	<b>Unlikely</b>	<b>Roughly Even Chance</b>	<b>Likely</b>	<b>Very Likely</b>	<b>Almost Certain(ly)</b>
<i>Terms of Probability</i>	<b>Remote</b>	<b>Highly Improbable</b>	<b>Improbable (Improbably)</b>	<b>Roughly Even Odds</b>	<b>Probable (Probably)</b>	<b>Highly Probable</b>	<b>Nearly Certain</b>
	<b>1-5%</b>	<b>5-20%</b>	<b>20-45%</b>	<b>45-55%</b>	<b>55-80%</b>	<b>80-95%</b>	<b>95-99%</b>



# Appendix B: Confidence Statements

## Confidence in Sources Supporting Assessments and Judgments

**Confidence in Assessments.** Our assessments and estimates are supported by information that varies in scope, quality and sourcing. Consequently, we ascribe *high*, *medium*, or *low* levels of confidence to our assessments, as follows:

- **High Confidence** generally indicates the judgments are based on high quality information, from multiple sources. High confidence in a judgment does not imply the assessment is a fact or a certainty; such judgments might be wrong. While additional reporting and information sources may change analytical judgments, such changes are most likely to be refinements and not substantial in nature.
- **Medium Confidence** generally means the information is credibly sourced and plausible but not of sufficient quality or corroborated sufficiently to warrant a higher level of confidence. Additional reporting or information sources have the potential to increase the confidence levels or substantively change analytical judgments.
- **Low Confidence** generally means the information's credibility or plausibility is uncertain, the information is too fragmented or poorly corroborated to make solid analytic inferences, or the reliability of the sources is questionable. Absent additional reporting or information sources, analytical judgments should be considered preliminary in nature.

# Appendix C: Title 21 U.S. Code (USC) Controlled Substances Act

## Definition of Controlled Substance Schedules

Drugs and other substances that are considered controlled substances under the Controlled Substances Act (CSA) are divided into five schedules. An updated and complete list of the schedules is published annually in [Title 21 Code of Federal Regulations \(C.F.R.\)](#). Substances are placed in their respective schedules based on whether they have a currently accepted medical use in treatment in the United States, their relative abuse potential, and the likelihood of causing dependence when abused.

### **Schedule I Controlled Substances**

Substances in this schedule have no currently accepted medical use in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse.

Examples: heroin, lysergic acid diethylamide (LSD), marijuana (cannabis), peyote, methaqualone, and 3,4-methylenedioxymethamphetamine ("Ecstasy").

### **Schedule II/IIN Controlled Substances (2/2N)**

Substances in this schedule have a high potential for abuse that may lead to severe psychological or physical dependence. Schedule II example narcotics: hydromorphone (Dilaudid®), methadone (Dolophine®), meperidine (Demerol®), oxycodone (OxyContin®, Percocet®), and fentanyl (Sublimaze®, Duragesic®). Other Schedule II narcotics: morphine, opium, codeine, and hydrocodone.

Schedule IIN example stimulants: amphetamine (Dexedrine®, Adderall®), methamphetamine (Desoxyn®), and methylphenidate (Ritalin®). Other Schedule II substances: amobarbital, glutethimide, and pentobarbital.

### **Schedule III/IIIN Controlled Substances (3/3N)**

Substances in this schedule have a potential for abuse less than substances in Schedules I or II and abuse may lead to moderate or low physical dependence or high psychological dependence. Schedule III example narcotics: products containing not more than 90 milligrams of codeine per dosage unit (Tylenol with Codeine®), and buprenorphine (Suboxone®).

Schedule IIIN example non-narcotics: benzphetamine (Didrex®), phendimetrazine, ketamine, and anabolic steroids such as Depo®-Testosterone.

### **Schedule IV Controlled Substances**

Substances in this schedule have a low potential for abuse relative to substances in Schedule III.

Examples: alprazolam (Xanax®), carisoprodol (Soma®), clonazepam (Klonopin®), clorazepate (Tranxene®), diazepam (Valium®), lorazepam (Ativan®), midazolam (Versed®), temazepam (Restoril®), and triazolam (Halcion®).

### **Schedule V Controlled Substances**

Substances in this schedule have a low potential for abuse relative to substances listed in Schedule IV and consist primarily of preparations containing limited quantities of certain narcotics.

Examples: cough preparations containing not more than 200 milligrams of codeine per 100 milliliters or per 100 grams (Robitussin AC®, Phenergan with Codeine®), and ezogabine.

Source: US Government Web site; Department of Justice, Drug Enforcement Administration, Diversion Control Division; "Controlled Substance Schedules"; <http://www.deadiversion.usdoj.gov/schedules/#list>; accessed on May 21, 2015.

# Appendix D: El Paso Intelligence Center and the National Seizure System

## Background information

Led by the DEA, the El Paso Intelligence Center (EPIC) is a national tactical intelligence center that focuses its efforts on supporting law enforcement efforts in the Western Hemisphere, with a significant emphasis on the Southwest border. Through its 24-hour watch function, EPIC provides immediate access to its databases to law enforcement agents, investigators, and analysts. This function is critical in the dissemination of relevant information in support of tactical and investigative activities, deconfliction, and officer safety. EPIC also provides significant, direct tactical intelligence support to state and local law enforcement agencies, especially in the areas of clandestine laboratory investigations and highway interdiction efforts.

EPIC's Gatekeeper Project is a comprehensive, multi-source assessment of trafficking organizations involved in and controlling movement of illegal contraband through "entry corridors" along the Southwest border. Gatekeeper analysis not only provides a better understanding of command and control, organizational structure and methods of operations, but also serves as a guide for policymakers to initiate enforcement operations and prioritize operations by U.S. anti-drug elements.

Implementation of License Plate Readers (LPR) along the Southwest border has provided a surveillance method that uses optical character recognition to read vehicle license plates. The LPR Initiative combines existing DEA and other law enforcement database capabilities with new technology to identify and interdict devices being utilized to transport bulk cash, drugs, weapons, as well as other illegal contraband.

The National Seizure System (NSS) consists of seizure information relating to drugs, weapons, currency, chemicals, and clandestine laboratory seizures reported to EPIC by federal, state and local law enforcement agencies from January 1, 2000, to the present. The NSS database contains approximately 400,000 records of seizure events.

In support of the Bulk Currency Program, EPIC established a depository for detailed bulk currency seizure information from both domestic and foreign law enforcement agencies. In addition, EPIC analyzes volumes of bulk currency seizure data and develops various reports which are routinely sent to federal law enforcement agencies throughout the country to provide investigative leads. EPIC also responds to requests for bulk currency seizure data from agents and officers in the field.

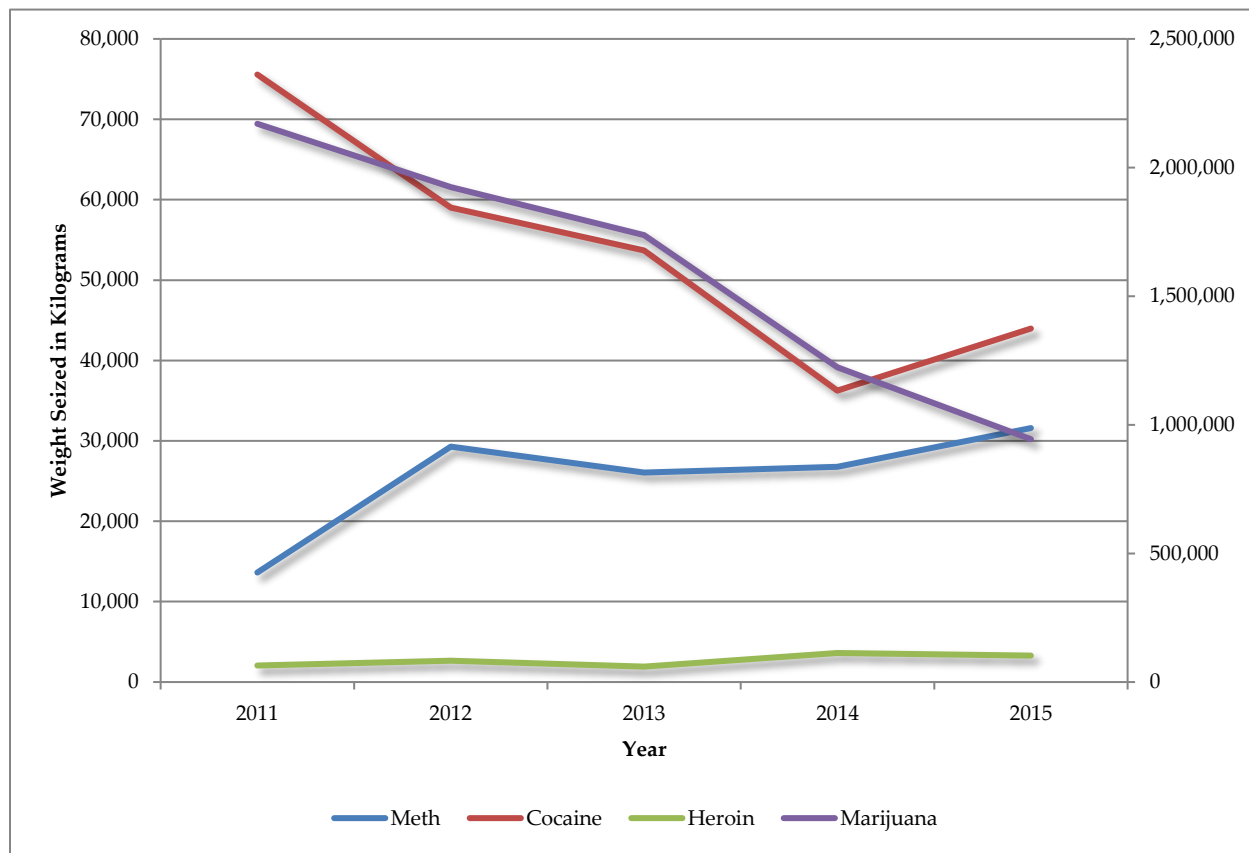
The ATF Southwest Border Unit, which also houses the EPIC Gun Desk, serves as the focal point for the collection, analysis, and dissemination of weapons related investigative leads derived from federal, state, local, and international law enforcement agencies.

Source: US Government Web site; Department of Justice; "Fact Sheet: Department of Justice Efforts to Combat Mexican Drug Cartels"; April 2, 2009; <http://www.justice.gov/opa/pr/fact-sheet-department-justice-efforts-combat-mexican-drug-cartels>; accessed on May 21, 2015.

# Appendix E: National Seizure System Statistics

NSS drug seizures nationwide by drug type in kilograms, CY2011-CY2015

Drug	2011	2012	2013	2014	2015	5 yr % chg
<b>Meth</b>	13,621	29,270	26,044	26,762	31,591	131.93%
<b>Cocaine</b>	75,568	59,014	53,667	36,253	43,954	-41.84%
<b>Heroin</b>	2,046	2,650	1,921	3,612	3,291	60.85%
<b>Marijuana</b>	2,170,179	1,923,726	1,737,124	1,223,702	943,906	-56.51%



Data description: Number of kilograms seized as reported to the NSS for the period of 2011-2015. Meth includes: powder, crystal, and liquid. Marijuana is listed on a secondary axis (right) due to the higher volumes involved.

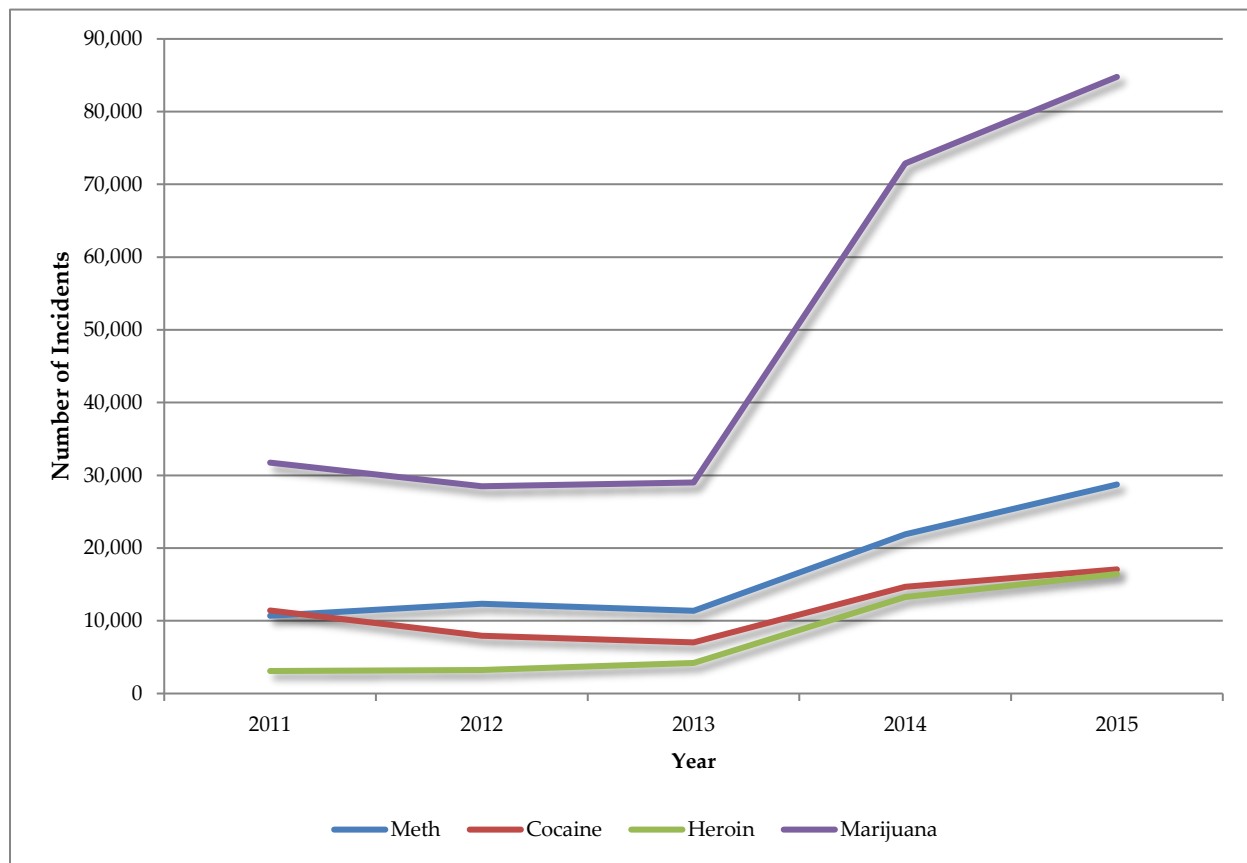
Source: National Seizure System; database search; April 13, 2016.

Created By: FBI Milwaukee

## Appendix E: National Seizure System Statistics (continued)

NSS drug seizure incidents nationwide by drug type, CY2011-CY2015

Drug	2011	2012	2013	2014	2015	5 yr % chg
<b>Meth</b>	10,687	12,339	11,381	21,888	28,738	168.91%
<b>Cocaine</b>	11,418	7,924	7,029	14,686	17,065	49.46%
<b>Heroin</b>	3,095	3,225	4,198	13,253	16,430	430.86%
<b>Marijuana</b>	31,756	28,494	29,023	72,877	84,781	166.98%



Data description: Number of seizure incidents as reported to the NSS for the period of 2011-2015. Meth includes: powder, crystal, and liquid.

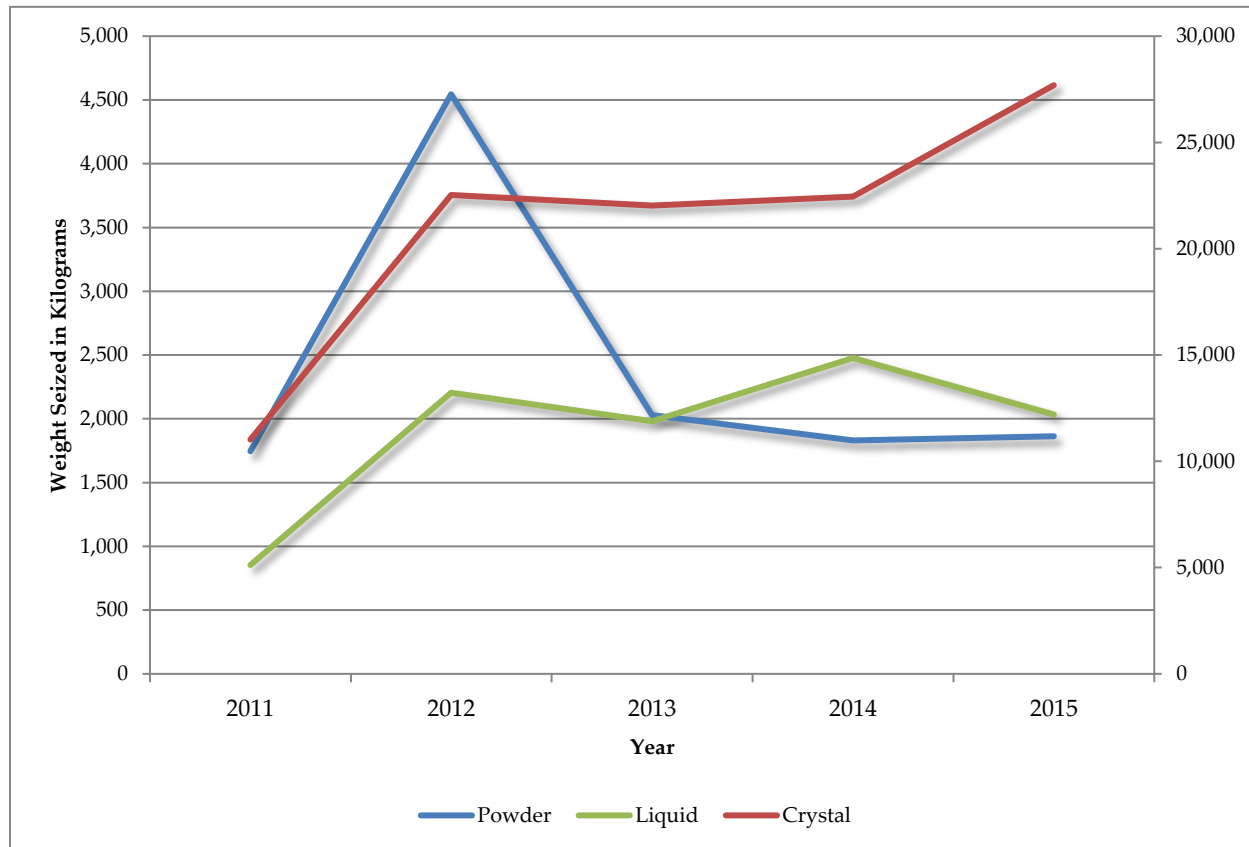
Source: National Seizure System; database search; April 13, 2016.

Created By: FBI Milwaukee

## Appendix E: National Seizure System Statistics (continued)

NSS meth seizures nationwide by meth type in kilograms, CY2011-CY2015

Meth Type	2011	2012	2013	2014	2015	5 yr % chg
<b>Powder</b>	1,745.81	4,544.66	2,028.33	1,829.95	1,862.77	6.70%
<b>Crystal</b>	11,021.99	22,520.92	22,037.17	22,455.66	27,694.93	151.27%
<b>Liquid</b>	853.33	2,204.86	1,979.47	2,476.66	2,033.43	138.29%



Data description: Number of kilograms of meth seized as reported to the NSS for the period of 2011-2015. Crystal is listed on a secondary axis (right) due to the higher volumes involved.

Source: National Seizure System; database search; April 13, 2016.

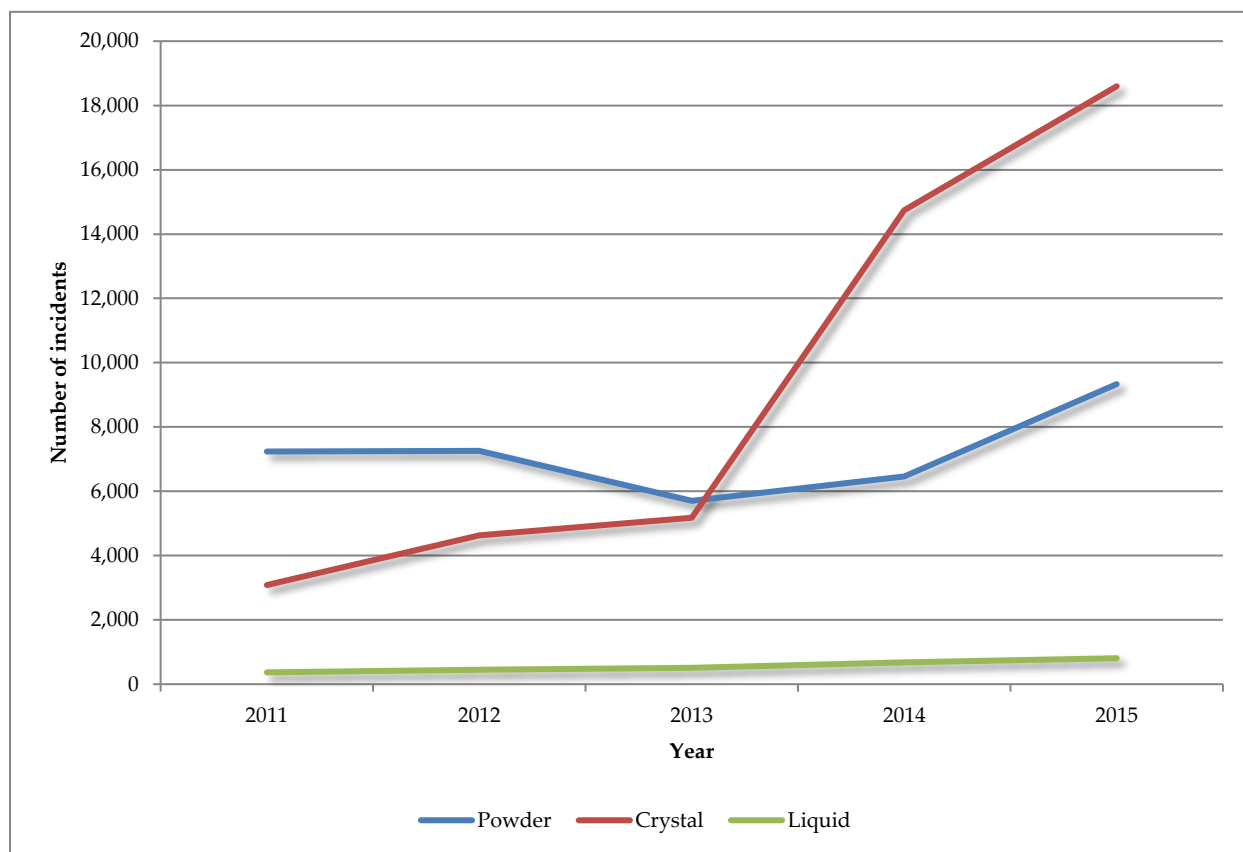
Created By: FBI Milwaukee



## Appendix E: National Seizure System Statistics (continued)

NSS meth seizure incidents nationwide by meth type, CY2011-CY2015

Meth Type	2011	2012	2013	2014	2015	5 yr % chg
<b>Powder</b>	7,236	7,261	5,703	6,462	9,333	28.98%
<b>Crystal</b>	3,084	4,633	5,173	14,746	18,598	503.05%
<b>Liquid</b>	367	445	505	680	807	119.89%



Data description: Number of meth-related seizure incidents as reported to the NSS for the period of 2011-2015.

Source: National Seizure System; database search; April 13, 2016.

Created By: FBI Milwaukee

## Appendix F: Local Law Enforcement Data

Meth-related data received from local law enforcement agencies

### Barron County Sheriff's Department

The Barron County Sheriff's Department reported from 2011 to 2015 the number of individuals arrested on meth-related charges rose 193 percent.<sup>314</sup>

### Eau Claire County District Attorney's Office

The Eau Claire County District Attorney's Office reported from 2011 to 2015 meth-related cases surged 462 percent.<sup>315</sup> Arrests during the same period jumped 526 percent and meth incidents rose 403 percent.<sup>316</sup> Lastly, the amount of meth seized increased 191 percent.<sup>317</sup>

### Marathon County Sheriff's Department

The Marathon County Sheriff's Department reported from 2011 to 2015 the number of meth-related operating while intoxicated (OWI) instances grew slightly.<sup>vv,318</sup> *WPR* reported the number of meth arrests in Marathon County increased from 54 in 2013 to 68 in 2014.<sup>319</sup> In addition, the article reported that the sheriff estimated that drug users commit 75 percent of the county's crime.<sup>320</sup>

### Menomonie Police Department

The Menomonie Police Department reported from 2012 to 2015 the number of individuals arrested for meth-related charges increased 37 percent.<sup>321</sup> They also stated there has been a recent resurgence of meth in the city.<sup>322</sup>

### Milwaukee Police Department

The Milwaukee Police Department reported, from 2011 to 2015, the number of meth-related arrests decreased 50 percent.<sup>323</sup> The decrease was likely due to issues arising from generic charge classifications. Additionally, heroin is considered a much larger issue in the city than meth, and therefore meth investigations are not initiated in high numbers.<sup>324</sup>

### Oneida County Sheriff's Department

The Oneida County Sheriff's Department reported they had no meth-related arrests in 2011, but from 2012 to 2015, the number of meth-related arrests increased 375 percent.<sup>325</sup>

### Pepin County Sheriff's Department

The Pepin County Sheriff's Department reported since the start of 2015, 80 percent of the individuals in the county jail were involved with some type of drug-related crime, the majority of which were tied to meth.<sup>326</sup>

### Polk County Sheriff's Department

The Polk County Sheriff's Department reported from 2012 to 2015, the number of meth cases rose 51 percent; arrests increased 27 percent; and search warrants grew 99 percent. Of note, Polk County has one of the highest instances of meth-related cases in Wisconsin and a population of just over 43,000.<sup>327</sup>

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<sup>vv</sup> OWI instances reflect instances of 2<sup>nd</sup> offense OWI or 1<sup>st</sup> offense OWI where the person consented to a blood test.

## Appendix F: Local Law Enforcement Data (continued)

Meth-related data received from local law enforcement agencies

### Prairie du Chien Police Department

The Prairie du Chien Police Department reported, from 2011 to 2015, the number of individuals arrested for meth possession increased 700 percent<sup>328</sup>

### Richland Center Police Department

The Richland Center Police Department reported meth has not historically been a problem in the county, but during the last quarter of 2015, they had their first meth seizure.<sup>329</sup>

### River Falls Police Department

The River Falls Police Department reported they had 51 cases related to meth possession, delivery, simple possession, or distribution in the city over the previous 5 years.<sup>330</sup>

### Sheboygan Police Department

The Sheboygan Police Department reported, from 2011 to 2015, meth-related arrests grew 155 percent, and the number of meth-related incidents increased 271 percent.<sup>331</sup>

### Wausau Police Department

The Wausau Police Department reported, from 2012 to 2015 arrests for the possession of meth increased 263 percent from.<sup>332</sup>

### Wisconsin Rapids Police Department

The Wisconsin Rapids Police Department reported from 2011 to 2015 they investigated 15 meth-related cases, of which 47 percent were in 2015 alone.<sup>333</sup>

# Appendix G: Wisconsin Drug Statutes

Explanation of Wisconsin drug statutes utilized in this study

## **961.41 Prohibited acts A – penalties**

**(1) MANUFACTURE, DISTRIBUTION OR DELIVERY.** Except as authorized by this chapter, it is unlawful for any person to manufacture, distribute or deliver a controlled substance or controlled substance analog. Any person who violates this subsection is subject to the following penalties:

**(d) Heroin.** If the person violates this subsection with respect to heroin or a controlled substance analog of heroin and the amount manufactured, distributed or delivered is:

1. Three grams or less, the person is guilty of a Class F felony.
2. More than 3 grams but not more than 10 grams, the person is guilty of a Class E felony.
3. More than 10 grams but not more than 50 grams, the person is guilty of a Class D felony.
4. More than 50 grams, the person is guilty of a Class C felony.

**(e) Phencyclidine, amphetamine, methamphetamine, methcathinone, cathinone, N-benzylpiperazine, and a substance specified in s. 961.14(7)(L).** If the person violates this subsection with respect to phencyclidine, amphetamine, methamphetamine, methcathinone, cathinone, N-benzylpiperazine, a substance specified in s. 961.14(7)(L), or a controlled substance analog of phencyclidine, amphetamine, methamphetamine, methcathinone, cathinone, N-benzylpiperazine, a substance specified in s. 961.14(7)(L), and the amount manufactured, distributed, or delivered is:

1-4. See previously listed limits.

**(1m) POSSESSION WITH INTENT TO MANUFACTURE, DISTRIBUTION OR DELIVER.** Except as authorized by this chapter, it is unlawful for any person to possess, with intent to manufacture, distribute or deliver, a controlled substance or a controlled substance analog. Intent under this subsection may be demonstrated by, without limitation because of enumeration, evidence of the quantity and monetary value of the substances possessed, the possession of manufacturing implements or paraphernalia, and the activities or statements of the person in possession of the controlled substance or a controlled substance analog prior to and after the alleged violation. Any person who violates this subsection is subject to the following penalties:

**(d) Heroin.** If a person violates this subsection with respect to heroin or a controlled substance analog of heroin and the amount possessed, with intent to manufacture, distribute or deliver, is:

1-4. See previously listed limits.

**(e) Phencyclidine, amphetamine, methamphetamine, methcathinone, cathinone, N-benzylpiperazine, and a substance specified in s. 961.14 (7)(L).** If a person violates this subsection with respect to phencyclidine, amphetamine, methamphetamine, methcathinone, cathinone, N-benzylpiperazine, a substance specified in s. 961.14 (7)(L), or a controlled substance analog of phencyclidine, amphetamine, methamphetamine, methcathinone, cathinone, N-benzylpiperazine, or a substance specified in s. 961.14 (7)(L), and the amount possessed, with intent to manufacture, distribute, or deliver, is:

1-4. See previously listed limits.

**(3g) POSSESSION.** No person may possess or attempt to possess a controlled substance or a controlled substance analog unless the person obtains the substance or the analog directly from, or pursuant to a valid prescription or order of, a practitioner who is acting in the course of his or her professional practice, or unless the person is otherwise authorized by this chapter to possess the substance or the analog. Any person who violates this subsection is subject to the following penalties:

**(g) Methamphetamine.** If a person possesses or attempts to possess methamphetamine or a controlled substance analog of methamphetamine, the person is guilty of a Class I felony.

Source: Web site; Docs.legis.wisconsin.gov; "Uniform Controlled Substances Act"; <http://www.docs.legis.wisconsin.gov/statutes/statutes/961.pdf>; accessed on May 21, 2015.

## Appendix H: Economic Cost of Meth Use in Wisconsin

Economic cost of meth use in Wisconsin as calculated from the 2005 RAND study (\$ millions)

Cost	Lower Bound	Best Estimate	Upper Bound
Drug Treatment	5.4	9.9	19.4
Health Care	2.1	6.4	11.1
Intangibles/premature death	227.0	301.5	517.8
Productivity	6.9	12.5	19.1
Crime and criminal justice	46.8	76.3	285.5
Child endangerment	5.7	16.4	21.1
Production/environment	0.7	1.1	1.6
Total	294.5	424.1	875.6

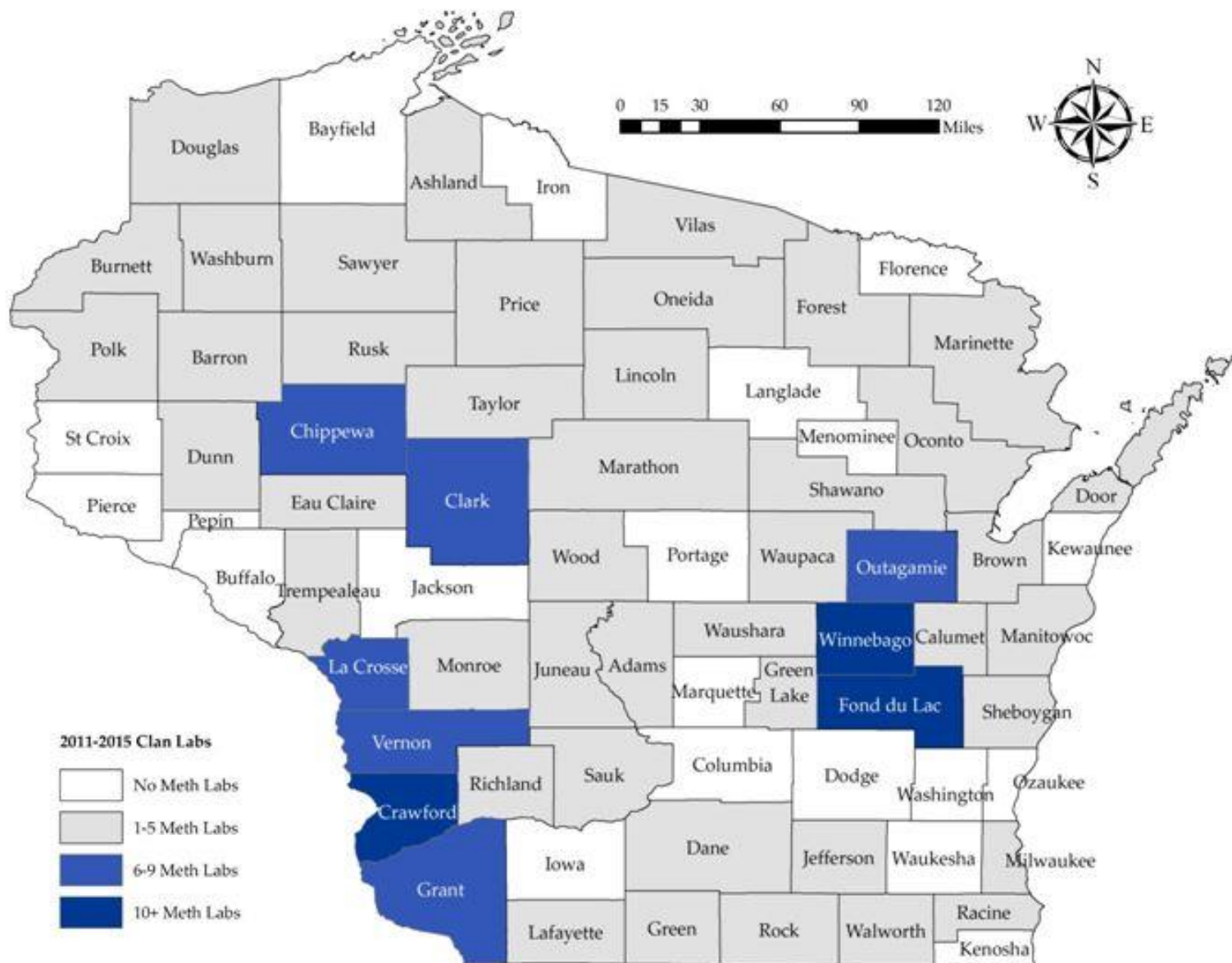
(U)Data description: Due to rounding, numbers may not sum precisely. For more information on how the categories were calculated, it is highly encouraged to review the source document.

Source: Report; RAND Corporation, Drug Policy Research Center; 2009; "The Economic Cost of Methamphetamine Use in the United States, 2005".

Created By: FBI Milwaukee

# Appendix I: Wisconsin Meth Labs

Total number of meth labs by Wisconsin county, CY2011-CY2015



Source: WSIC; Information on meth labs in Wisconsin.

Created By: WSIC



# Appendix J: Indicators of Suspicious Activity

## Commercially available meth precursors – hotel room scenario

The ingredients used to make methamphetamine (meth) are generally commercially available products that by themselves present little danger, but these materials can ignite, explode or release toxic gases if mixed or stored improperly. Labs can exist indoors or outdoors, in houses, apartment buildings, motels, vehicles, wooded areas, or fields. This scenario depicts commercially available materials that may be encountered in hotels, motels,

and other lodging establishments that could be an indicator of meth production. While the detection of any one of these materials should not be seen as an indicator of meth production, the detection of multiple items, especially if encountered in large quantity or involving both equipment and items not often found in a lodging establishment, should be seen as suspicious and reported immediately.

### COMMERCIALLY AVAILABLE PRECURSORS NOT OFTEN FOUND IN LODGING ESTABLISHMENTS

1. Gasoline additives
2. Paint thinner, degreaser
3. Brake fluid
4. Lighter fluid
5. Antifreeze
6. Engine starting fluid
7. Rock salt

### ITEMS NOT DEPICTED

- Lithium batteries
- Stained tubing
- Chemical fertilizer
- Coffee grinder with white powder residue
- Coffee filters with red/brown stains
- Sheet or pillow case with red/brown stains
- Plastic soda bottles containing salt
- Highway flares
- Hydrochloric acid/muriatic acid

### COMMERCIALLY AVAILABLE PRECURSORS COMMONLY ENCOUNTERED IN LODGING ESTABLISHMENTS

8. First aid antiseptic
9. Rubbing alcohol, mouthwash
10. Cold and allergy medications
11. Strike plate from matchbook covers
12. Instant cold/ice packs

### EQUIPMENT USED TO MAKE METH

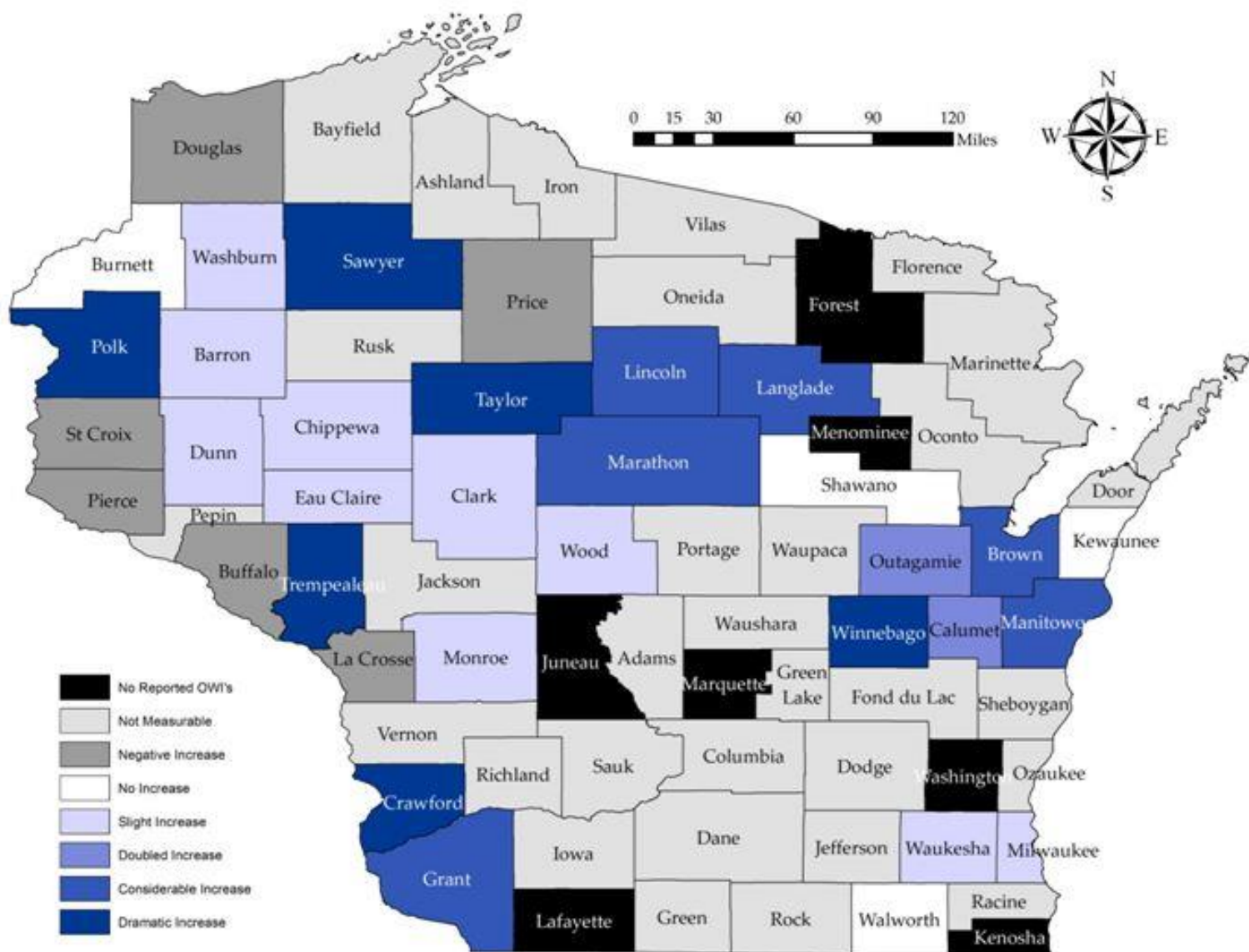
13. Written recipes
14. Hot plate/heat source
15. Hypodermic syringes
16. Glassware (mason jars, beakers, bottles)
17. Gas can
18. Rubber gloves
19. Funnels

● ● ● Colors depicted are used to assist in identifying and locating possible precursor materials arranged within the graphic.  
\*This graphic is unclassified when separated.

Source: FBI/DHS; Reference Aid; January 8,

# Appendix K: Operating While Intoxicated

Growth in meth-related OWI incidents by county, CY2012-2013 compared to CY2014-CY2015



Data Description: Average number of meth-related OWI incidents for 2012-2013 compared to 2014-2015 to identify growth in incidents at the county level.

Source: FBI; Email; June 2, 2016.

Created By: WSIC

# Appendix L: L-Meth

## Over-the-counter L-Meth

While the *d*-isomer is available by prescription, unknown to most individuals and physicians, the *l*-isomer is sold over-the-counter and is the active ingredient in Vicks® VaporInhaler (spelled levmetamfetamine by the manufacturer). Results of a 2008 study published in *BMC Clinical Pharmacology* found even at four times the recommended dosage, *l*-methamphetamine was well tolerated, produced minimal pharmacodynamic effects, and had a low potential for abuse.<sup>334</sup>

Even though *l*-meth has a low potential for abuse, when used as directed, it can be abused. An internet search revealed a number of forums where individuals discussed ways to successfully extract *l*-meth from nasal inhalers.

Vicks® removed their VaporInhaler from store shelves, but generic versions still exist and can be found at Wal-Mart, Walgreens, and CVS stores.



Source: FBI Milwaukee



Source: FBI Milwaukee



Source: FBI Milwaukee

# Appendix M: FDA Approved ADHD Medication

Prescribed amphetamines, methamphetamine, and amphetamine-like stimulants

Generic Name	Brand Name	Ingredients	Amphetamine (A), Methamphetamine (M), or Other Prescribed Stimulant (O)	Year of FDA Approval for ADHD Treatment
Methamphetamine	Desoxyn®	Methamphetamine hydrochloride	M	1943
Methylphenidate	Ritalin®	Methylphenidate hydrochloride	O	1955
Mixed amphetamine salts	Adderall®	Amphetamine aspartate, amphetamine sulfate, dextroamphetamine saccharate, dextroamphetamine sulfate	A	1960
Mixed amphetamine salts, extended release	Adderall XR®			2001
Dextroamphetamine	Dexedrine®	Dextroamphetamine sulfate	A	1975
Dextroamphetamine sustained-release capsules	Dexedrine® spansules			1976
Methylphenidate	Ritalin-SR®	Methylphenidate hydrochloride	O	1982
Methylphenidate extended release	Metadate ER®	Methylphenidate hydrochloride	O	1999
Methylphenidate extended-release capsules	Concerta®	Methylphenidate hydrochloride	O	2000
Methylphenidate	Focalin®	Dexmethylphenidate	O	2001
Methylphenidate extended release	Focalin XR®			2005
Methylphenidate long-acting capsules	Ritalin LA®	Methylphenidate hydrochloride	O	2002
Atomoxetine	Strattera®	Atomoxetine hydrochloride	O	2002
Long acting lisdexamfetamine dimesylate	Vyvanse®	Lisdexamfetamine	A	2007
Amphetamine sulfate	Evekeo®	Amphetamine sulfate	A	2012
Methylphenidate extended release	Quillivant XR®	Methylphenidate hydrochloride	O	2012
Amphetamine extended release orally disintegrating tablets	Adzenys XR-ODT®	Amphetamine	A	2016

Source: US Government Web site; Food and Drug Administration; "Drugs@FDA: FDA Approved Drug Products"; <http://www.accessdata.fda.gov/scripts/cder/drugsatfda>; accessed on May 21, 2016.

Created By: FBI Milwaukee



## Appendix N: Glossary

*Amphetamine-type stimulants* – A group of substances composed of synthetic stimulants that were placed under international control in the Convention on Psychotropic Substances of 1971 and are from the group of substances called amphetamines, which includes amphetamine, meth, methcathinone and the “ecstasy”-group substances (3,4-methylenedioxymethamphetamine (MDMA) and its analogues).

*Amphetamines* – A group of amphetamine-type stimulants that includes amphetamine and methamphetamine.

*Bioavailability* – A subcategory of absorption and is the fraction of an administered dose of unchanged drug that enters systemic circulation. By definition, when a drug administered intravenously has 100 percent bioavailability. When a drug is ingested via other routes (such as orally), its bioavailability generally decreases.

*Biological half-life* – The time it takes for a substance to lose half of its pharmacologic, physiologic, or radiologic activity. Typically, this refers to the body’s cleansing function of the kidneys and liver in addition to excretion functions.

*Clandestine laboratory* – Refers to an illicit operation consisting of a sufficient combination of apparatus and chemicals that either has been or could be used in the manufacture or synthesis of controlled substances.

*Conduct disorder* – When a child’s behavior is physically and verbally aggressive toward other people or property. A child with a conduct disorder acts out in a way that is not appropriate for his/her age. The behaviors are repetitive and often start at a young age and worsen over time. It is often accompanied with other mental health conditions, such as depression, ADHD, or learning disabilities.

*Diversion* – A medical and legal concept involving the transfer of any legally prescribed controlled substance from the individual for whom it was prescribed to another person for illicit use.

*Enantiomers* – Molecules that are mirror images of each other and are non-superimposable (not

identical). This is similar to the left and right hand, which are the same except for being reversed along one axis.

*Ice* – The street name for crystallized methamphetamine. Also referred to as shabu, crystal, crystal meth, or d-meth, ice is the purest and most potent form of methamphetamine.

*Jail bed days* – The calculated number of each booking, determining the time spent in jail of a particular calendar year. For example, if an individual is booked at 12:00 am on 12/31/14 and released at 12:00am on 1/2/16, their stay accounts for 1 jail bed day in 2014, 365 jail bed days in 2015, and 1 jail bed day in 2016.

*Manualized therapy* – Treatment that is presented in a “manual” format and comes with a series of prescribed goals and techniques to be used during each session/phase of treatment.

*Opioids* – A generic term applied to alkaloids originating from opium poppy (opiates), their synthetic analogues (mainly prescription or pharmaceutical opioids), and compounds synthesized in the body.

*Potency* – The measure of drug dosage required to exert an effect on the body.

*Purity* – The amount of an illicit substance present in a sample compared to other substances in the sample such as adulterants, diluents, or solvents.

*Speed* – Street name for amphetamine sulphate. It also refers generally to other types of amphetamines.

*TEDS* – The Treatment Episode Data Set is a national census data system of annual admissions and discharges to substance abuse treatment facilities. Treatment programs receiving any public funds are required to provide the data on both publicly and privately funded clients. In some states, programs that do not receive public funds are required to provide data as well. TEDS collects this data from the states on all admissions and discharges aged 12 and older.

# Endnotes

- <sup>1</sup> Online news article; Vice.com; “A Comprehensive Guide to Cooking Meth on ‘Breaking Bad’”; August 11, 2013; <http://www.vice.com/read/a-comprehensive-guide-to-cooking-meth-on-breaking-bad>; accessed March 28, 2016.
- <sup>2</sup> Online news article; TheAtlantic.com; “Brewing Bad: The All-Natural Origins of Meth”; October 3, 2014; <http://www.theatlantic.com/technology/archive/2014/10/brewing-bad-the-all-natural-origins-of-meth/381045/>; accessed on September 25, 2015.
- <sup>3</sup> *Op. cit.*, endnote 1.
- <sup>4</sup> *Op. cit.*, endnote 2.
- <sup>5</sup> Journal article; American Journal of Public Health, Vol 98, No. 6; “America’s First Amphetamine Epidemic 1929-1971”; June 2008.
- <sup>6</sup> Journal article; Chronicle of Higher Education, Vol. 54 Issue 43; “Life in the Fast Lane”; July 4, 2008.
- <sup>7</sup> *Op. cit.*, endnote 5.
- <sup>8</sup> *Op. cit.*, endnote 6.
- <sup>9</sup> *Op. cit.*, endnote 5.
- <sup>10</sup> *Op. cit.*, endnote 6.
- <sup>11</sup> *Op. cit.*, endnote 5.
- <sup>12</sup> *Op. cit.*, endnote 6.
- <sup>13</sup> Online news article; Spiegel.de; “Crystal Meth Origins Link Back to Nazi Germany and World War II”; May 30, 2013; <http://www.spiegel.de/international/germany/crystal-meth-origins-link-back-to-nazi-germany-and-world-war-ii-a-901755.html>; accessed September 4, 2015.
- <sup>14</sup> *Ibid.*
- <sup>15</sup> Journal article; Annu Rev Public Health; “The Methamphetamine Problem in the United State”; 2010
- <sup>16</sup> *Op. cit.*, endnote 6.
- <sup>17</sup> *Op. cit.*, endnote 5.
- <sup>18</sup> *Op. cit.*, endnote 6.
- <sup>19</sup> *Op. cit.*, endnote 15.
- <sup>20</sup> *Op. cit.*, endnote 6.
- <sup>21</sup> *Op. cit.*, endnote 15.
- <sup>22</sup> *Op. cit.*, endnote 1.
- <sup>23</sup> *Ibid.*
- <sup>24</sup> *Op. cit.*, endnote 6.
- <sup>25</sup> Report; Congressional Research Service; October 2, 2014; “Drug Enforcement in the United States: History, Policy, and Trends”.
- <sup>26</sup> *Op. cit.*, endnote 15.
- <sup>27</sup> Journal article; Addict Behav., 36(12); “Methamphetamine: Here We Go Again?”; December 2011.
- <sup>28</sup> *Op. cit.*, endnote 15.
- <sup>29</sup> *Ibid.*
- <sup>30</sup> Journal article; Journal of Ethnographic & Qualitative Research, Vol. 6; “An Exploration of the Relationship between the Use of Methamphetamine and Prescription Drugs”; 2012.
- <sup>31</sup> *Ibid.*
- <sup>32</sup> *Op. cit.*, endnote 15.
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- <sup>319</sup> Online news article; WPR.org; “Meth Use Sees An Uptick In Central Wisconsin, According To Law Enforcement”; January 28, 2015; <http://www.wpr.org/meth-use-sees-uptick-central-wisconsin-according-law-enforcement>; accessed on September 3, 2015.
- <sup>320</sup> *Ibid.*
- <sup>321</sup> *Op. cit.*, endnote 98
- <sup>322</sup> *Ibid.*



<sup>323</sup> FBI; Email; May 26, 2016.

<sup>324</sup> *Ibid.*

<sup>325</sup> FBI; Email; May 26, 2016.

<sup>326</sup> *Op. cit.*, endnote 85.

<sup>327</sup> *Op. cit.*, endnote 94.

<sup>328</sup> FBI; Email; March 4, 2016.

<sup>329</sup> *Op. cit.*, endnote 104.

<sup>330</sup> FBI; Email; March 4, 2016.

<sup>331</sup> *Op. cit.*, endnote 95.

<sup>332</sup> FBI; Email; April 22, 2016.

<sup>333</sup> FBI; Email; May 26, 2016.

<sup>334</sup> Journal article; BMC Clinical Pharmacology, 8:4; “The Clinical Pharmacology of Intranasal l-Methamphetamine”; July 21, 2008.

